11c H
1897

Library.

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

Colorado College

and Cutler Academy

5-1900

May, 189~~7~~.

Learning and Labor.

LIBRARY
OF THE
University of Illinois.

CLASS.	BOOK.	VOLUME.
C	C71cH	1895-190

Accession No.

Digitized by the Internet Archive
in 2012 with funding from
University of Illinois Urbana-Champaign

http://archive.org/details/annualcatalogue189500colo

LIBRARY
UNIVERSITY OF ILLINOIS
URBANA
19

Twenty-Second Annual
Bulletin

OF

Colorado College

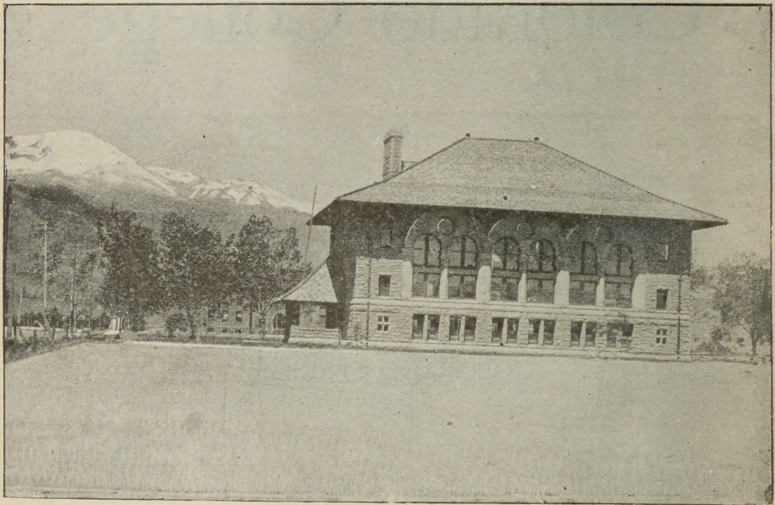
AND

Cutler Academy,

COLORADO SPRINGS,
COLO.

MAY, 1896.

COLORADO SPRINGS:
THE TELEGRAPH PRINTING COMPANY.
1896.



COBURN LIBRARY.

CONTENTS.

Announcement 5
Trustees, Executive Committee 8
Faculty 9
Calendar 14
Requirements for admission 15
Entrance examinations 19
Admission to advanced standing 20

COURSES OF STUDY—

- Bachelor of Arts 21
- Bachelor of Philosophy 23
- Bachelor of Science 26

DEPARTMENTS OF INSTRUCTION—

- Philosophy 29
- Greek 31
- Latin 33
- English 35
- Modern Languages—German, French, Spanish 36
- Mathematics and Astronomy 38
- Physics 39
- Chemistry 40
- Biology 44
- Geology 45
- Economic, Political and Social Science 46
- History 48
- Bible Study 48
- Oratory 49
- Physical Culture 49

Prizes and Honors 51
Schedule of Recitations 52

THE CUTLER ACADEMY—

- Faculty 54
- Statement 55
- Requirements for Admission 56
- Courses of Study 57
- Appendix (Supplementary Readings in English, etc.), 64

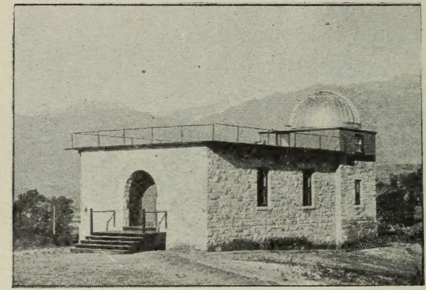
COLORADO COLLEGE CONSERVATORY OF MUSIC—

- Faculty 65
- Purpose and Scope 66
- Relation to Colorado College 68
- Courses of Study 68
- Free Advantages 71
- Special Features 71
- Expenses, Tuition, etc. 72
- Rooms and Board 72

CIRCULAR OF INFORMATION—

- Location 75
- Special students 76
- Library 76
- Reading Rooms 78
- Laboratories and apparatus 79
- Museum 79
- The Colorado College Scientific Society 82
- University Extension Lectures 84
- College Residences 86
- Students' Societies 86
- Alumni Association 87
- Contests in Public Speaking 87
- Expenses 87
- College Bills 88
- Pecuniary Assistance 89
- The Woman's Educational Society 89
- Transfer of Tillotson Academy 89
- Needs of the College 90
- Forms of Bequest 92

63300



WOLCOTT OBSERVATORY.

ANNOUNCEMENT.

Colorado College is the oldest institution of its kind in the State, having been incorporated in 1874, while Colorado was still a Territory, and first opened in May of that year.

Its charter places it under the government of a self-perpetuating board of trustees.

The Rev. Jonathan Edwards was the first professor and executive officer. The first President was the Rev. James G. Dougherty, elected in 1875. The following year he was succeeded by the Rev. E. P. Tenney. In 1885 the office of President became vacant and so remained for three years—without interruption, however, of the work of the College. In the fall of 1888, William Frederick Slocum, Jr., took charge of the institution.

The first permanent building—the central stone structure, since enlarged and now known as Palmer Hall—was occupied in 1880. The stone dwelling which serves as the President's residence was purchased by the trustees in 1888. Hagerman Hall was erected in 1889, and is a home for young men and such instructors as desire to make it their residence while connected with the College. Another stone building on the campus, completed in 1891, is named Montgomery Hall, and furnishes a home for young women who are students of the College.

The Gymnasium was built in 1891, and has since been equipped with a large amount of new apparatus, and with modern appliances for the comfort and convenience of those who use it.

The Coburn Library, which the College owes to the generosity of the late Mr. N. P. Coburn, of Newton, Massachusetts, was finished in February, 1894. It is a beautiful specimen of architecture, and is furnished with all modern facilities for book storage and seminary work. The lower story of the building has been furnished as the College Chapel.

The Observatory presented to the College by Mr. Henry R. Wolcott, of Denver, was completed in June, 1894. It contains a lecture-room, study, transit-room and dome-room. In the latter is a telescope of four inches aperture, equatorially mounted. The Observatory is the centre of the Mathematical and Astronomical work of the College.

At the beginning of 1893, Dr. D. K. Pearsons, of Chicago, offered to give the trustees $50,000, provided that an additional $150,000 should be given by other friends of the College during the next two years,—a period which he has kindly extended to July, 1896. The importance of securing this gift is so great that the trustees are making a strong appeal to all friends of the College to help them in raising the necessary amount.

It is the purpose of the trustees to surround the students with healthful moral and religious influences, without the limitations of sectarianism. From year to year the Faculty has been enlarged, and the courses of study have been so arranged that educational facilities of the same grade are offered in Colorado College as at the Eastern institutions of higher education. The scope of the work undertaken was, until 1894, purposely restricted to the Department of Liberal Arts; by which means ampler equipment and a larger Faculty have been secured, and, it is believed, an exceptionally high degree of proficiency attained. During that year, however, in response to many calls from within and without the State of Colorado, a Department of Music was added, which, by the efficiency of its Faculty and the thoroughness of its courses, insures the maintenance, in this branch, of the standard of instruction prevailing throughout the College. A Department of Fine Arts was inaugurated at the same time, and has been placed in charge of a Director of proved competence as artist and teacher.

Notwithstanding the continued financial depression, the attendance for the last year has been the largest in the history of the institution.

Attention is called to the Cutler Academy, the associated preparatory school, in which students are prepared for any American college.

TRUSTEES OF THE COLLEGE.

William F. Slocum, Jr.,
President of the Board.
Edward Brinley Adams.
George W. Bailey.
W. P. Bonbright.
Rev. W. H. W. Boyle.
John Campbell.
John Curr.
Henry Cutler.
Rev. James B. Gregg, D. D.
J. J. Hagerman.
J. R. Hanna.
Thomas S. Hayden.
Irving Howbert.
William S. Jackson.
F. L. Martin.
William J. Palmer.
George H. Parsons.
Rev. Philip Washburn.

EXECUTIVE COMMITTEE.

J. J. Hagerman, *Chairman.*
George H. Parsons, *Secretary.*
John Curr.
William S. Jackson.
William F. Slocum, Jr.

J. H. Barlow, *Treasurer of the College.*

FACULTY.

WILLIAM FREDERICK SLOCUM, JR., B. D., LL. D.,
President and Professor of Philosophy.
B. A. (Amherst), '74; B. D. (Andover), '78; LL. D. (Amherst), '93; LL. D. (University of Nebraska), '94; Colorado College, '88.

LOUIS A. E. AHLERS, A. B.,
Professor of Modern Languages.
A. B. (Harvard), '94; University of Berlin, '93-'94; Harvard Graduate School, '94-'95; Colorado College, '95.

SUSAN ALMIRA BACON,
*Instructor in French and German.**
Special Student, Frau Dr. Hempel, Berlin; Colorado College, '92.

FLORIAN CAJORI, M. S., PH. D ,
Professor of Physics.
B. S. (University of Wisconsin), '83; M. S. (University of Wisconsin), '86; Ph. D. (Tulane University), '94; Johns Hopkins University, '84-'85; Assistant Professor of Mathematics, Tulane University, '85-'87; Professor of Applied Mathematics, Tulane University, '87-'88; United States Bureau of Education, '88 '89; Colorado College, '89.

FRANCIS WHITTEMORE CRAGIN, B. S.,
Professor of Geology, Mineralogy and Paleontology.
Agassiz Laboratory, Newport, '81; B. S. (Harvard) '82; Professor of Natural History, Washburn College, '82-'91; Colorado College, '91,

OMA FIELDS,
*Instructor in Piano-Forte.**
New England Conservatory of Music (graduate), '89; Colorado College, '94.

GEORGE A. H. FRASER, M. A.,
Professor of Latin
B. A. (University of Toronto), '89; M. A. (University of Toronto), '90; Tutorial Fellow in Classics, University of Toronto, '89-'91; Professor of Latin and Greek Languages and Literature, College of Montana, '91-'93: Colorado College, '93.

---

* On leave of absence for study in Europe.

M. CLEMENT GILE, M. A.

Professor of Greek.

B. A. (Brown University), '83; M. A. (Brown University), '86; Instructor in Phillips Academy, Andover, Mass., '83-'92; Assistant Professor of Greek, University of Chicago, '92-'94; Colorado College, '92.

RUBIN GOLDMARK,

Director of the Conservatory of Music, and Instructor in Harmony, Counterpoint and Composition.

Conservatory of Music, Vienna, '89-'91; Pupil of Raphael Joseffy and Anton Dvorak, '91; Instructor, National Conservatory of Music, New York, '91-'93; Colorado College, '95.

BLANCHE HERMANN,

Instructor in Piano-Forte.

Conservatory of Music, Leipsic (graduate), '90-'95; (Pupil of Widenbach and Reinecke); Colorado College, '95.

EDITH HUSE,

Instructor in Vocal Sight Reading.

Student with H. E. Holt, Boston, Mass., '94-'95; Colorado College, '95.

THE REV. E. C. F. KRAUSS,

Assistant Librarian.

(Erlangen University, Germany), '45; Instructor in German, Harvard University, '61-'68; Colorado College, '93.

HUGH H. LANGTON, B. A.,

Librarian.

B. A. (University of Toronto), '83; Graduate of the Law Society of Upper Canada, '87; Registrar of the University of Toronto, '87-'92; Librarian of the University of Toronto, '92-'95; Colorado College, '95.

FRANK HERBERT LOUD, B. A.,

Professor of Mathematics and Astronomy.

B. A. (Amherst), '73; Walker Instructor in Mathematics, Amherst, '73-'76; Instructor in Geometry, Smith College, '79; Scholar in Mathematics, Clark University, '90-'91; Colorado College, '77.

THE REV. GEORGE NATHANIEL MARDEN,

Professor of History.

PAUL MARTIN MEAD,

Instructor in Physical Culture.

Assistant Instructor in Physical Culture, Oberlin College, '88-'89; Assistant Instructor in Physical Culture, Denver Y. M. C. A., '95; Instructor in Physical Culture, Colorado Springs Y. M. C. A., '95; Colorado College, '95.

ATHERTON NOYES, B. A.,

Instructor in English and Greek, and Dean of the Faculty.

B. A. (Yale), '85; Colorado College, '92.

MARION McGREGOR NOYES,

Instructor in Philosophy and Latin, and President's Assistant.

Radcliffe College, (Harvard Annex), '79-'81; Instructor in Logic and Psychology, Wellesley College, '88-'91; Colorado College, '91.

EDWARD S. PARSONS, M. A., B. D.,

Professor of English.

B. A. (Amherst), '83; M. A. (Amherst), '86; B. D. (Yale), '87; Colorado College, '92.

ALBERT C. PEARSON, B. S.,

*Instructor in Piano-Forte.**

B. S. (University of Michigan), '76; Student, Dr. William Mason, New York, '86-'88; Colorado College, '94.

SOPHIE BENDELARI DE PERALTA,

Director of the Department of Fine Arts.

Cooper Institute, N. Y. (Graduate), '80; Student under R. Swain Gifford, J. Alden Weir, and Douglas Volk, N. Y.; subsequently with Carolus Duran and Henner, (Paris), and Morelli (Naples); Colorado College, '95.

GRACE A. PRESTON, M. A., M. D.,

Lecturer in Physiology and Hygiene and Medical Adviser.†

B. A. (Smith College), '82; M. D. (Boston University), '86; M. A. (Smith), '89; M. D. (Women's College of New York Infirmary), '90; Paris Faculty of Medicine, '86-'87; Professor of Physiology and Anatomy and Resident Physician, Smith College, '87-'93; Colorado College, '94.

---

* Resigned. [The chair of Piano-Forte will be filled at the beginning of the academic year.]

† Deceased.

LOUISE REINHARDT.

Instructor in Spanish.

Instructor in English, Liceo Franco-Mejicano, Chihuahua, '94-'95; Colorado College, '96.

ARTHUR F. STEARNS, B. A.,

Instructor in Elocution.

B. A. (Amherst), '88; Colorado College, '95.

WILLIAM STRIEBY, M A., E. M.,

Professor of Chemistry and Metallurgy.

B. A. (University of the City of New York), '75; E. M. (Columbia College School of Mines), '78; M. A. (University of the City of New York), '79; Colorado College, '78.

GEORGE SZAG,

Instructor in the Violin.

Royal Conservatory, Dresden (Pupil of Rappoldi and graduate), '79-'82; Berlin Conservatory (Pupil of Emil Sauvert), '85-'86; Member of Thomas's Orchestra, '86-'88; Colorado College, '95.

HANNAH L. TAYLOR, M. D.,

Instructor in Physiology and Hygiene and Assistant Medical Adviser.

Woman's Medical School, Philadelphia, '88-'90; M. D. (University of Colorado), '93; Clinical Obstetrician, University of Colorado, '93-'95; Assistant County Physician, Arapahoe County, Colorado, '93-'94; Post-Graduate School of Medicine and Polyclinic, New York, '95; Colorado College, '95.

FANNY AIKEN TUCKER,

Instructor in Vocal Music.

Hershey School of Musical Art, '84-'85: Special Student in Oratorio and Church Music with Mrs. Sara Hershey Eddy, Chicago, '86,-'90; Colorado College, 94.

FRANCIS WALKER, M. S., PH. D.,

Instructor in Political and Social Science.

B. S. (Massachusetts Institute of Technology), '92; M. S. (Massachusetts Institute of Technology),''93; Ph. D. (Columbia College), '95; University Fellow in Economics, Columbia College, '94-'95; Colorado College, '95,

LECTURERS BEFORE THE SENIOR AND JUNIOR CLASSES.

J. T. ESKRIDGE, M. D.,
Localization of Brain Functions; The Psychology of Speech; Hypnotism.

EDWARD FREEMAN, M. D.,
Anatomy of the Brain; Microscopic Analysis of Nervous Tissue.

THE REV. JAMES B. GREGG, D. D.,
The Ethical Teaching of the Old Testament.

....
Christian Ethics.

Lady-in-charge at Montgomery Hall,
MRS. EDWARD WOOLSEY BACON,

Lady-in-Charge at Hagerman Hall,
MRS. HARRIET S. CULVER,

CALENDAR.

1896.

April	1	Wednesday	Easter Recess begins at 1 P. M.
April	8	Wednesday	Easter Recess ends at 8:30 A. M.
May	30	Saturday	Decoration Day.
June	9	Tuesday	Second Semi-Annual Examinations begin. First Entrance Examinations begin.
June	14	Sunday	Baccalaureate Sermon.
June	15	Monday	College Oratorical Contest.
June	16	Tuesday	Cutler Academy Graduation Exercises.
June	17	Wednesday	Commencement Exercises.
Sept.	22	Tuesday	Second Entrance Examinations begin.
Sept.	23	Wednesday	First Half-year begins at 8:30 A. M.
Nov.	26	Thursday	Thanksgiving Recess.
Nov.	27	Friday	
Dec.	22	Tuesday	Christmas Recess begins at 1 P. M.

1897.

Jan.	5	Tuesday	Christmas Recess ends at 8:30 A. M.
Jan.	28	Thursday	Day of Prayer for Colleges.
Feb.	1	Monday	First Semi-Annual Examinations begin
Feb.	8	Monday	Second Half-year begins at 8:30 A. M.
Feb.	22	Monday	Washington's Birthday.
April	14	Wednesday	Easter Recess begins at 1 P. M.
April	21	Wednesday	Easter Recess ends at 8:30 A. M.
May	31	Monday	Decoration Day.
June	8	Tuesday	Second Semi-Annual Examinations begin. First Entrance Examinations begin.
June	13	Sunday	Baccalaureate Sermon.
June	14	Monday	College Oratorical Contest.
June	15	Tuesday	Cutler Academy Graduation Exercises.
June	16	Wednesday	Commencement Exercises.
Sept.	21	Tuesday	Second Entrance Examinations begin.

REQUIREMENTS FOR ADMISSION TO THE

FRESHMAN CLASS.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF ARTS.

Admission by Examination.

1. IN GREEK.—(*a*) A thorough knowledge of inflection, with the use of the accents, and the ordinary grammatical constructions. (*b*) Four books of the Anabasis, or three books and Cooke's Selections from the Cyropædia. (*c*) Three books of the Iliad, with prosody and dialectic forms. (*d*) Translation at sight of average passages from Xenophon and Homer. (*e*) The translation into Greek of a passage of connected discourse of moderate difficulty. (Collar and Daniell's Greek Prose Composition or the first forty-four exercises in Allinson's will indicate the nature of the work required.) (*f*) Such a brief general view of Greek history as is contained in the revised edition of Pennell's or Oman's or Myers's History of Greece.

2. IN LATIN.—(*a*) Grammar. Special stress will be laid upon an accurate and ready knowledge of grammatical forms. (*b*) *Cæsar:* Gallic War, Bks. I-IV, or an equivalent. (*c*) *Cicero:* Seven orations. (*d*) *Vergil:* Æneid, Bks. I-VI. (*e*) Translation at sight of easy passages of prose Latin. (*f*) Prose Composition, (Daniell). (*g*) An outline knowledge of the history of the Roman Republic.

3. IN ENGLISH.—The candidate will be required to write a short essay, which will be judged from the standpoint of thought, spelling, punctuation, grammar and division into paragraphs, on one of several topics which will be announced at the time of the examination. In 1896 the topics will be chosen from the following works: Shakespeare's Midsummer Night's Dream; De Foe's History of the Plague in London; Irving's Tales of a Traveller; Scott's Woodstock; Macaulay's Essay on Milton; Longfellow's Evangeline; George Eliot's Silas Marner.

All these books are to be read carefully and intelligently. Minute knowledge of them will not be required, but the candidate will be expected to have clearly in mind their important parts. For the examinations in 1897 and 1898, the following books are prescribed:

For 1897.—Shakespeare's As You Like It; Defoe's History of the Plague in London; Irving's Tales of a Traveller; Hawthorne's Twice Told Tales; Longfellow's Evangeline; George Eliot's Silas Marner.

For 1898.—Milton's Paradise Lost, Books I and II; Pope's Iliad, Books I and XXII; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's The Vicar of Wakefield; Coleridge's Ancient Mariner; Southey's Life of Nelson; Carlyle's Essay on Burns; Lowell's Vision of Sir Launfal; Hawthorne's The House of the Seven Gables.

In addition to the above, the candidate will be required to pass an examination upon the subject matter, form and other literary qualities of the following books: Shakespeare's Merchant of Venice; Milton's L'Allegro, Il Penseroso, Comus and Lycidas; Webster's First Bunker Hill Oration.

For the examinations in 1897 and 1898, the following are prescribed:

For 1897.—Shakespeare's The Merchant of Venice; Burke's Speech on Conciliation with America; Scott's Marmion; Macaulay's Life of Samuel Johnson.

For 1898.—Shakespeare's Macbeth; Burke's Speech on Conciliation with America; De Quincey's The Flight of a Tartar Tribe; Tennyson's The Princess.

A mastery of the essentials both of English grammar and of elementary rhetoric will also be required of all candidates.

4. IN GERMAN OR FRENCH.—A good elementary knowledge of the language, such as is sufficient for reading easy prose at sight.

IN MATHEMATICS.—(*a*) Algebra, through simultaneous quadratic equations. (*b*) Elementary Plane Geometry, or as much as is contained in the first five books of Beman and Smith's or Wentworth's Geometry.

[Candidates from schools where Greek is not taught, who have completed the preparation for the Bachelor of Philosophy division of the Freshman class, but prefer to follow the course for the degree of Bachelor of Arts, will be allowed to do so by taking Greek through the whole four years; but they are advised, instead, to diminish the requisite amount of work by substituting in their preparation a second year of German or French, and, if possible, the Freshman Latin or Mathematics, or both, for subjects which are not required for admission to the Bachelor of Arts division. If the Freshman Latin and Mathematics are not attainable in preparation, additional years of German and French will be useful through being credited as Junior electives.]

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed the Classical preparatory course adopted by the Colorado State Teachers' Association, will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Arts.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF PHILOSOPHY.

Admission by Examination.

In Latin, English, German (or French) and Mathematics, the requirements are the same as for the course leading to the degree of Bachelor of Arts. Candidates for admission to this course need not offer Greek, in place of which they will be examined in the following subjects:

1. IN PHYSICS.—Gage's Physics, or an equivalent.
2. IN CHEMISTRY.—Williams' Introduction to Chemical Science, or an equivalent.

3. IN BOTANY.—Gray's Lessons (revised edition), or Bergen's Elements of Botany.

4. IN PHYSIOLOGY.—Martin's Briefer Course, or an equivalent.

5. IN AMERICAN OR ENGLISH HISTORY.—An outline knowledge of leading facts.

For either Botany or Physiology, Appleton's Physical Geography may be substituted.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed the Latin Scientific preparatory course adopted by the Colorado State Teachers' Association, will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Philosophy.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

In Physics, Chemistry, Botany, Physiology and American or English History, the requirements are the same as for the course leading to the degree of Bachelor of Philosophy. The following are the additional requirements:

1. IN LATIN.—Four books of Cæsar's Gallic War, with a thorough knowledge of grammar; Latin Composition, at least so much as is contained in the first part of Daniell's Prose Composition.

2. IN ENGLISH.—The same as the requirements for admission to the Bachelor of Arts course (see pp. 15, 16).

3. IN GERMAN.—Joynes' German Reader, Chamisso's Peter Schlemihl, Schiller's Jungfrau von Orleans and Don Carlos, Jensen's Braune Erica, Lessing's Minna von Barnhelm, Storm's Immensee and Freytag's Journalisten, or the equivalent of these.

4. IN FRENCH.—A good elementary knowledge of the language, such as is sufficient for reading easy prose at sight.

5. IN MATHEMATICS.—(*a*) Algebra, including the elements of the Theory of Infinite Series, (Binomial, Exponential and Logarithmic Series, with simple applications in computation), and so much of the Theory of Equations as to include Horner's Method of Solution. (*b*) Geometry, Plane and Solid, as contained in Beman and Smith's Geometry, or in the first eight books of Wentworth. (*c*) Trigonometry, Plane and Spherical. The principles involved in the solution of triangles must be comprehended, and a fair degree of readiness and accuracy in their use acquired.

For either Botany or Physiology, Appleton's Physical Geography may be substituted.

Admission by Certificate.

Candidates who offer satisfactory evidence, on the certificate of accredited schools, of having completed a preparatory course similar in character and *equivalent in extent* to the above requirements, will be admitted without condition into the Freshman class in the course leading to the degree of Bachelor of Science.

ENTRANCE EXAMINATIONS.

Examinations for admission to the College will be held on Tuesday and Wednesday, June 9 and 10, 1896, and again on Tuesday and Wednesday, September 15 and 16, 1896, in each case beginning on Tuesday at 9 A. M. No examination will be held between these dates, but delayed examinations may be held after the beginning of the Fall term, for the accommodation of students who, for good reason, have been unable to attend at the regular time.

For the accommodation of students residing at a distance, examinations will be held under the direction of authorized persons, at various points in and near the State, as need may require. The cities of Cheyenne, Wyo.; Denver, Pueblo, Trinidad, Leadville, Montrose and Grand Junction, Colo.; and Las Vegas, N. M.; are points where such arrangements can readily be made, and others may be added if necessary. But students who desire examinations at these or other points must notify the President at least three weeks in advance of the time of the regular examination.

ADMISSION TO ADVANCED STANDING.

Students will be received into advanced classes on examination in the studies of the preceding years. The Faculty may, at their discretion, receive certificates from other colleges as evidence that the student has satisfactorily pursued these or equivalent studies.

The attention of students who propose to enter the Junior or Senior class is called to the notice at the end of the Elective list (page 26), relative to early application for Electives.

COURSES OF STUDY.

Three courses of study are offered in the College, each subject to considerable variation at the will of the student. The course leading to the degree of Bachelor of Arts corresponds to that which the best Eastern colleges require for the same degree. In the course leading to the degree of Bachelor of Philosophy there is no Greek, and less Latin than in the course for Bachelor of Arts; but the required work of the first two years includes more of Natural Science and Modern Languages. The course leading to the degree of Bachelor of Science is so arranged that special attention may be devoted to any one of five principal lines of study, which give prominence to Mathematics, Physics, Chemistry, Biology and Geology, respectively. A detailed description of these will be found below.

BACHELOR OF ARTS.

FRESHMAN YEAR.

Mathematics.—4 hours through the year. First half year—Plane Trigonometry, Solid Geometry. Second half year—Spherical Trigonometry and Algebra, (Series, Logarithms and Numerical Higher Equations).

German or French.—4 hours through the year; a second year (Course B, see pp: 36-37) of whichever of these languages the student offered as part of his preparation for college.

English.—2 hours through the year; History of the English Language and Rhetoric (Courses 1 and 2, page 34).

Elocution.—2 hours through the year; and declamations, as the instructor may require. (Counts as one hour.)

Greek.—3 hours through the year. First half-year—Selections from the Odyssey or Iliad; reading at sight. Second half-year—Selections from Lysias; History of Greek Oratory; The Apology and Crito, or Phaedo, of Plato; reading at sight.

Latin.—4 hours through the year. First half year—Livy, Bk. xxii; Cicero, de Senectute; Latin composition; reading at sight. Second half-year—Tacitus, Dialogus de Oratoribus; Selected Odes of Horace; Latin composition; reading at sight.

SOPHOMORE YEAR.

Latin. — 3 hours through the year. First half-year — Vergil, Georgics, Bk. ii; Selected letters of Pliny; Latin composition; reading at sight. Second half year—Horace, Epistles, Bk. i; Cicero, Tusculan Disputations i, ii; Latin composition; reading at sight.

Latin.—An additional hour during the second half-year forms part of the alternative to Greek for students who elect Analytical Geometry. See below, under "*Mathematics.*"

Chemistry.—8 hours through the year; partly laboratory work and partly recitation. (Counts as four hours.)

Logic. Second half-year, 3 hours. Jevons's Lessons in Logic.

English.—First half year, 2 hours—Applied Rhetoric, (Course 3, page 34). Second half-year, 3 hours—American Literature, (Course 4, page 35).

Mathematics.—First half-year, 4 hours—Analytical Geometry, including the elementary properties of Conics. Second half-year, 3 hours—Analytical Geometry continued.

In place of the Mathematics of the first half-year, *Astronomy* may be substituted (see below, under that title); and the student who has chosen Mathematics during the first half has, for the second half-year, the alternative of continuing that study, together with an additional hour of Latin, or of taking Greek in place of both these.

Astronomy.—First half-year, 4 hours—(Course 12, page 39.) Alternative to Analytical Geometry; (see above, under *Mathematics*).

Greek.—First half-year, 4 hours—The Antigone of Sophocles; History of Greek Tragedy; Æschylus, Prometheus Bound, Second half-year, 4 hours—Alternative to Analytical Geometry and 1 hour of Latin, for students who choose Mathematics during the first half-year, but required of students who choose Astronomy; (see above, under *Mathematics*); Euripides, Iphigenia Taurica; Demosthenes, De Corona; reading at sight.

JUNIOR YEAR.

Psychology.—3 hours through the year, including 1 seminary hour. James' Principles of Psychology; lectures and experiments. In the seminary, theses and discussions.

Physics.—4 hours through the year. Heat, Electricity, Magnetism, Light. Lectures and experiments in Measurement. (Course A, page 39.)

Political Economy.—First half-year, 3 hours.

English and Elocution.—The writing and delivery of two orations.

Elective Courses.—Amounting to at least 7 hours in the first half-year, and 10 in the second, chosen by the student from the list given on pages 24–26. Some course in History must be chosen among the electives of Junior or Senior year.

SENIOR YEAR.

History of Philosophy and Ethics.—5 hours through the year, including 1 seminary hour. First half-year — History of Philosophy, outside reading, lectures and conferences. Second half-year—Janet's Theory of Morals, outside reading, lectures and conferences. In the seminary of each course theses and discussions.

English.—The writing of two orations.

Elocution. 2 hours through the year, and the public delivery of two orations.

Elective Courses.—Amounting to at least 11 hours for the first half-year and 9 hours for the second half-year; chosen by the student from the list on pages 24-26.

BACHELOR OF PHILOSOPHY.

FREHSMAN YEAR.

Mathematics, German or French, English, Elocution.—The requirements are the same as those in the Bachelor of Arts course above.

Latin.—As in the Bachelor of Arts course, or, if the student so elects,

French or German.—4 hours through the year; Course A (see pp. 36, 37) of whichever of these languages was not offered as part of the preparation for college.

Biology.—6 hours through the year; laboratory practice, with additional exercises, (readings, etc.,) at the discretion of the instructor. (Counts as three hours.)

SOPHOMORE YEAR.

French or German.—4 hours through the year. The student takes whichever of these two languages was not included in his preparation for college; Course A (see pp. 36, 37) if he did not have it in Freshman year, otherwise Course B.

Chemistry.—9 hours through the year. Roscoe's Elements of Chemistry. (Counts as four hours.)

Geology.—4 hours through the year. Le Conte's Elements of Geology; field excursions.

Logic.—Second half-year, 3 hours. Jevons's Lessons.

Mathematics.—The same courses in Analytical Geometry are offered as to the A. B. student, occupying 4 hours in the first half-year and 3 hours in the second. But as an alternative *Astronomy* may be chosen in the first and *English* in the second half-year.

Astronomy.—As in the Bachelor of Arts course, alternative to Analytical Geometry in the first half-year.

English.—First half-year, 2 hours—Applied Rhetoric. Second half-year, 3 hours—American Literature (Course 4, page 35.) This course is alternative with Analytical Geometry to students who have taken the first half-year of the latter study, but those who elect Analytical Geometry in the second half-year will be required to include American Literature among the electives of Junior or Senior year.

JUNIOR YEAR.

Required hours, (except in *Physics*) the same as those in the Bachelor of Arts course above. Elective hours, 9 and 12.

Physics.—2 hours throughout the year. (Course B., page 39.).

SENIOR YEAR.

The requirements are the same as those in the Bachelor of Arts course above.

History.—In Junior or Senior year, the student in this, as in the A. B. course, will choose among his electives some course in History.

Elective Studies for Juniors and Seniors in the A. B. and Ph. B. Courses.

The following Electives, though intended primarily for A. B. and Ph. B. students, are also open to students taking the Sc. B. course. The Electives more especially designed for the latter course will be found below, under the various subdivisions of the Sc. B. work.

Unless otherwise stated, each Elective Study continues through the year, and is open to both Seniors and Juniors.

Philosophy.—(Page 29)

Hours per week.

2 *Modern German Philosophy*, first half-year.
2 *The Philosophic Movement in England*, second half-year.
2 *Advanced Logic*, second half-year.
2 *Lotze*, second half-year.

Mathematics and Astronomy.—(page 38.)

4 *Calculus*, Differential and Integral (course 7.)
4 *Analytical Geometry*, (course 5 and 6,) while forming part of the regular Sophomore work for some students is offered as a Junior or Senior elective to the others. First half-year.
4 *Projective Geometry*, (course 8.)
2 *History of Mathematics*, one half-year (course 9.)
3 *Higher Algebra and Higher Plane Curves*, (course 10.)

Hours per week.

4 *Astronomy*, Elementary, (course 12.) See the above remark under Analytical Geometry. First half-year.

2 *Astronomy.* Observatory work with problems in Mathematical Astronomy. (part of course 13.) Second half-year.

CHEMISTRY.—(Page 42.)

4 *General and Applied Chemistry.* Sophomore Chemistry prerequisite.

4 *Chemical Analysis*, Qualitative.

PHYSICS.—(Page 39.)

2 *Applications of Electricity*, or *Theory of Light.* (Course E. or G.)

2 *Molecular Physics*, (Course D.)

2 *Laboratory Practice in Physics*, (Course F.)

BIOLOGY AND GEOLOGY.—(Pages 5, 44, 45.)

2 *Comparative Morphology of Vertebrata*, first half-year.

3 *Zoology*, second half-year.

4 *Mineralogy*, second half-year.

3 *Economic Geology*, first half-year.

2 *Paleontology*, second half-year.

POLITICAL AND SOCIAL SCIENCE.—(Page 46.)

3 *Public Finance;* first half-year.

2 *Money and Banking;* second half-year.

2 *Railroads;* second half-year.

3 *Historical Politics;* first half-year.

3 *Comparative Politics;* second half-year.

2 *Socialism;* second half-year.

4 *English History*; first half-year.

4 *United States History;* second half-year.

ENGLISH.—(Page 34.)

3 *English* (*Juniors*), Courses 4-7.

3 *English* (*Seniors*), Courses 4-9.

GREEK.—(Page 31.)

2 *Greek History*, one-half year.

2 *Greek Philosophy*, one-half year.

2 *Greek Oratory*, one-half year.

2 *Greek Epic and Lyric Poetry*, one-half year.

LATIN.—(Page 33.)

2 *The Roman Drama*, one-half year.

2 *Roman Lyric and Elegiac Poetry*, one-half year.

2 *Roman Satiric and Epigrammatic Poetry*, one-half year.

Hours per week.

2 *Roman History*, one-half year.

2 *Roman Philosophy*, one-half year.

MODERN LANGUAGES.—(page 36.)

2 *German Literature.*

2 *Nibelungen Lied*, etc.

2 *Faust*, or other special topic.

2 *Middle High German*, or *Gothic.*

2 *French Literature*, Introductory.

2 *French Literature*, Historical.

2 *Jean Jacques Rousseau.*

2 *Spanish*, Elementary course.

2 *Cervantes.*

PUBLIC SPEAKING.—(page 49.)

BIBLE STUDY.—(page 48.)

A student for any degree is usually permitted, further, to take as an elective any study required for another degree, that does not appear in the course required for his own degree. But for this purpose, French A counts as 2 hours only, German A as 3 hours.

Seniors and Juniors should mail their choice of electives to Prof. Atherton Noyes, Colorado Springs, in time to be received there not later than September 8, 1896. The hours for electives (other than Senior and Junior English, which are included in the schedule on pp. 52-53), will then be assigned, and electives for which no application has been received may be withdrawn.

BACHELOR OF SCIENCE.

The studies which are required of all candidates for the degree of Bachelor of Science are as follows:

FRESHMAN YEAR.

English. As in the Freshman year of the A. B. course. Two hours per week.

Biology. As in the Freshman year of the Ph. B. course. Three hours per week.

French B. (See page 37.) First half-year, four hours per week; second half-year, two hours.

Chemistry. As in the Sophomore year of the Ph. B. course. Nine hours per week in the laboratory throughout the year.

Elocution.—As in the Freshman year of the A. B. course. Two hours per week.

Analytical Geometry. First half year, four hours per week: second half-year, three hours. The same course which is offered to the election of A. B. students in Sophomore year.

Mechanics.—Second half-year, 3 hours per week.

SOPHOMORE YEAR.

English.—As in the Sophomore year of the A. B. course. First half-year, 2 hours per week: second half-year, 3 hours.

Physics.—Course C., page 40. 4 hours per week.

German.—First half-year, 4 hours per week; second half-year, 2 hours.

Mechanical Drawing.—First half-year, 2 hours per week.

Logic.—As in the Bachelor of Arts course: second half-year, 3 hours per week.

JUNIOR YEAR.

Astronomy.—4 hours a week, through the first half-year. The course is identical with that offered to the election of A. B. students in Sophomore year.

Psychology.—As in the Bachelor of Arts course; 3 hours a week through the year.

Political Economy.—As in the A. B. course: 3 hours a week, for the first half-year.

SENIOR YEAR.

History of Philosophy.—As in the Senior year of the A. B. and Ph. B. courses. Five hours per week.

History.—In Junior or Senior years, some course in History must be elected.

In the Freshman year the required studies tabulated above will occupy the entire time of the student. In the three succeeding years, other required studies, differing according to the nature of the course selected, must be added to those above named; and still other studies are offered in each department as elective. The student will select so many of the latter as will make, together with the studies required of all Sc. B. candidates and those required for the course of his selection, sixteen or seventeen hours of recitation per week. The student's choice of electives is not limited to those offered in the department to which his principal studies belong; but he may take in place of them, so far as not prevented by conflict of hours, any branch which is a required study for any of the college courses, or any elective study in which a class may have been formed by students taking other courses than his own, whether leading to the degree of Sc. B. or to other degrees; provided, however, that the general scientific character of his course be maintained to the satisfaction of the Faculty.

ADDITIONAL REQUIREMENTS AND ELECTIVES.

COURSE IN PURE MATHEMATICS AND ASTRONOMY.

SOPHOMORE YEAR.—Calculus (required); 4 hours per week. Projectective Geometry (elective); 4 hours per week for the second half-year.

JUNIOR YEAR. -Laboratory Physics (required); 2 hours per week. Astronomical Observations and Computations (required); 4 hours per week in the second half-year. Higher Algebra and Plane Curves (elective); 3 hours per week. History of Mathematics (elective); 2 hours per week for half the year.

SENIOR YEAR. -Theory of Substitutions (elective); 2 hours per week; Mathematical Astronomy (elective); 2 hours per week.

COURSE IN PHYSICS.

SOPHOMORE YEAR.— Calculus (required); 4 hours per week. Molecular Physics (elective); 2 hours per week.

JUNIOR YEAR. –Applications of Electricity (required); 2 hours per week. Laboratory Physics (required); 2 hours per week. Analytical Mechanics (elective); 2 hours per week. Astronomical Observations and Computations, (elective); 4 hours per week in the second half-year.

SENIOR YEAR. - Theory of Light (required); 2 hours per week. Electricity and Magnetism (elective); 2 hours per week.

COURSE IN CHEMISTRY.

SOPHOMORE YEAR. Qualitative Analysis (required); 4 hours per week. Organic Chemistry (required); 2 hours per week.

JUNIOR YEAR. -Advanced Chemistry (required); 4 hours per week. Quantitative Analysis (elective); 4 hours per week. Molecular Physics (elective); 2 hours per week.

SENIOR YEAR. Theoretical Chemistry (elective); 3 hours per week. Applied Chemistry (elective); 2 hours per week.

COURSE IN BIOLOGY.

SOPHOMORE YEAR. Structural and Systematic Botany of Cryptogams and Phenogams (required); 4 hours per week. Zoology (required); 3 hours per week.

JUNIOR YEAR. Comparative Anatomy of Invertebrates (required); 3 hours per week. Geology (required); 4 hours per week.

SENIOR YEAR. –Comparative Anatomy of Vertebrates (required); 2 hours per week. Comparative Embryology (required); 2 hours per week.

COURSE IN GEOLOGY.

SOPHOMORE YEAR. Geology (required); 4 hours per week. Mineralogy (required); 3 hours per week.

JUNIOR YEAR.—Economic Geology and Lithology (required); 3 hours per week. Invertebrate Paleontology (required); 2 hours per week.

SENIOR YEAR.—Geological Surveying (required); 3 hours per week. Vertebrate Paleontology (required); 2 hours per week.

Some of the studies offered as electives in this scheme can only be taken by students who have previously completed certain antecedent studies: Calculus and Analytical Mechanics are prerequisite to either Mathematical Astronomy, or Electricity and Magnetism. Qualitative must precede Quantitative Analysis, and Advanced Chemistry is needed for Theoretical Chemistry. The Anatomy or Paleontology of Invertebrates must precede that of Vertebrates; and a general study, like those entitled Astronomy or Geology, in the above table, is prerequisite to a special study of the same name, as Mathematical Astronomy, or Economic Geology.

DEPARTMENTS OF INSTRUCTION.

A more detailed account of the different branches of study included in the College curriculum will be found below.

PHILOSOPHY.

This course extends over the second half of the Sophomore and the whole of the Junior and Senior years, and gives the student a knowledge of the development of thought in the several departments of Philosophy.

1. LOGIC.—Jevons' Elementary Lessons. Three hours, second half-year.—MISS NOYES.

2. PSYCHOLOGY.—James' Principles of Psychology. Lectures, Recitations and Experiments. Three hours, one year.—PRESIDENT SLOCUM and MISS NOYES.

   Lectures:
   - (*a*) Introductory series.—PRESIDENT SLOCUM.
   - (*b*) Psycho-physics.—PRESIDENT SLOCUM.
   - (*c*) The Anatomy of the Brain: Microscopic Analysis of Nervous Tissues.—DR. LEONARD FREEMAN.
   - (*d*) Localization of General Cerebral Functions.—DR. J. T. ESKRIDGE.
   - (*e*) The Psychology of Speech.—DR. J. T. ESKRIDGE.
   - (*f*) Hypnotism.—DR. J. T. ESKRIDGE.

3. PSYCHOLOGICAL LABORATORY.—Opportunity will be afforded for the conducting of experiments in special lines.

4. PSYCHOLOGICAL SEMINARY.—The leading subjects in Modern Psychology. Theses and Discussion. One hour.—PRESIDENT SLOCUM.

5. HISTORY OF PHILOSOPHY.—Lectures, Recitations and Conferences. Four hours.—PRESIDENT SLOCUM.

   Lectures:
   - (*a*) Study in Comparative Religions.—PRESIDENT SLOCUM.
   - (*b*) Greek Philosophy. Twenty Lectures.—PRESIDENT SLOCUM.
   - (*c*) Modern Philosophy. Fifteen Lectures.—PRESIDENT SLOCUM.

     (1) The Rise and Fall of Scholasticism; (2) The Beginnings of Modern Philosophy—Bacon and Descartes; (3) Spinoza; (4) Locke: (5) The Sceptical Movement in France; (6) Leibnitz: (7) Berkeley; (8) Hume; (9) Kant, The Critique of Pure Reason; (11) Kant, The Transcendental Element in his Philosophy; (12) Hegel; (13) Schopenhauer; (14) Lotze; (15) Spencer, The Philosophy of Evolution.

     These lectures will be followed by a series of conferences conducted by President Slocum.

6. METAPHYSICAL SEMINARY. One hour. PRESIDENT SLOCUM.
   Presentation of papers and discussion of the following subjects:
   - (*a*) The Great Religions of the World.
   - (*b*) The Psychological Basis of Religious Faith.
   - (*c*) The Psychological Basis of Aesthetics.
   - (*d*) Philosophical Thought in England during the Nineteenth Century.
   - (*e*) Evolution; its History, Development and Results.
7. ETHICS.—Janet's Theory of Morals. Lectures, Theses and Discussions. Four hours.—PRESIDENT SLOCUM.
   Lectures:
   - (*a*) The Fundamental Principles of Ethics. Twelve Lectures.—PRESIDENT SLOCUM.
   - (*b*) The Ethical Teaching of the Old Testament. Three Lectures.—REV. JAMES B. GREGG, D. D.
   - (*c*) Christian Ethics. Three Lectures.
8. ETHICAL SEMINARY. One hour.—PRESIDENT SLOCUM.
   Presentation of papers and discussions upon the following subjects:
   - (*a*) Modern Social and Sociological Problems.
   - (*b*) The Ethical View of Citizenship.
   - (*c*) A Study of Educational Theories from an Ethical Standpoint.
9. ELECTIVE COURSES:
   - (*a*) Modern German Philosophy. First half of Senior year. Two hours.—PRESIDENT SLOCUM.
   - (*b*) The Philosophical Movement in England. Second half of Senior year. Two hours.—PRESIDENT SLOCUM.
   - (*c*) Advanced Logic. Second half year. Two hours.—MISS NOYES.
   - (*d*) Lotze. Second half-year. Two hours —MISS NOYES.

GREEK.

The studies in this department are prescribed for all candidates for the degree of Bachelor of Arts in the Freshman year and the first half of the Sophomore year, and are elective for the remainder of the College course.

The course is so arranged as to give the student an introduction to the several great departments of Greek Literature, and each author is studied from the literary as well as from the linguistic side. Particular care is taken to have the student acquire facility in reading Greek, and great stress is laid on reading at sight, throughout the course. At the same time, accuracy is insisted on, and the student is required to translate into idiomatic English.

FRESHMAN YEAR.

1. *Homer* Selections from the Odyssey and Iliad in the original, and all the poems in translation.

2. *Lysias* Selections; History of Greek Oratory. *Plato*-Apology and Crito, with portions of the Phaedo, and readings from the Memorabilia of Xenophon. Three hours through the year.

SOPHOMORE YEAR.

3. *Æschylus and Sophocles* One play from each author in Greek, and all the plays in English. Four hours, first half-year.

4. *Euripides*—Two plays in Greek, and the most important remaining plays in English. Four hours, second half-year.

Candidates for the A. B. degree may substitute for this course Analytical Geometry, together with an additional hour of Latin.

ELECTIVE.

1. GREEK HISTORY. *Herodotus;* careful study of the period of the Persian Wars. Readings from the dramatists for further illustration of the life of the period. *Thucydides;* the Sicilian Expedition. Parallel readings in Curtius, Grote and other modern historians. Selections from Plutarch's Lives. Two hours, first half-year.

2. GREEK PHILOSOPHY.—*Plato*, Phaedo. Selections from other dialogues, and from the works of *Xenophon.* Zeller's Socrates and the Socratic Schools; Plato and the Older Academy; Stoics, Epicureans and Sceptics. Wallace's Aristotle. Two hours, first half-year.

3. GREEK ORATORY.—*Lysias* and *Demosthenes*, with selections from the other Attic Orators from Antiphon to Lycurgus. Two hours, second half-year.

4. GREEK EPIC AND LYRIC POETRY.—*Homer*, *Hesiod* and *Pindar*, with selections from the Anthology. Two hours, second half-year.

LATIN.

The study of Latin extends throughout the four years of the College course. It is obligatory in the Freshman and Sophomore years upon candidates proceeding to the degree of Bachelor of Arts; while students in the Bachelor of Philosophy course may choose it as an alternative to French or German in the Freshman year. In the Junior and Senior years a choice of Electives is offered.

The aim of the department will be to develop the power of reading Latin with some facility, to secure a thorough knowledge of the mechanism of the language, to stimulate the appreciation of Latin literature, and to give a general acquaintance with the history, antiquities and life of the Roman people.

Much stress is laid upon sight translation and Latin prose composition. Instruction is given mainly by recitations; but these are supplemented by occasional lectures by the instructor, and, in the upper years, by Seminary work.

The following are the texts at present prescribed as the basis of instruction; to which must be added in all the years sight translation from authors not specified, and, in the Freshman and Sophomore years, Latin prose composition.

FRESHMAN YEAR.

First Half.—Livy, Book XXII; Cicero, de Senectute.

Second Half.—Tacitus, Dialogus de Oratoribus; Horace, Odes II.

Four hours a week throughout the year.

SOPHOMORE YEAR.

First Half.—Vergil, Georgics II; Pliny, Selected Letters.

Second Half.—Horace, Epistles I; Cicero, Tusculan Disputations, I, II.

Three hours a week throughout the year.

JUNIOR AND SENIOR YEARS.

ELECTIVE.

(*a*) The Roman Drama.—History and characteristics of Roman Tragedy and Comedy. Fragments of *Naevius*, *Ennius*, *Pacuvius*, *Attius*, *Caecilius Statius*, *Titinius*, *Afranius*, *Laberius*, *Publilius Syrus*, etc. (Ribbeck's Scenicæ Romanorum Poesis Fragmenta.) *Plautus*, Menæchmi; *Terence*, Adelphi; *Seneca*, Troades. One-half year, two hours per week.

(*b*) ROMAN LYRIC AND ELEGIAC POETRY.—Sources, development and characteristics of Lyric and Elegiac Poetry in Rome. Fragments of *Calvus*, (Lachmann); *Catullus*—Selections, (Simpson); *Horace*—Odes II, IV; *Tibullus*—Selections, (Ramsay); *Propertius*—Selections, (Ramsay); *Ovid*—Selections, (Ramsay). Discussion of questions in literature and criticism. One-half year, two hours per week.

(*c*) ROMAN SATIRIC AND EPIGRAMMATIC POETRY.—History of Roman Satire. Fragments of *Ennius*, *Lucilius*, (Lucilii Saturarum Reliquiæ,—Muller), *Varro*, (Riese); *Horace*, Satires, Book II; *Persius*, I, II, V; *Petronius; Sulpicia; Juvenal*, I, IV, VIII; *Martial*, Selections. One-half year, two hours per week.

(*d*) ROMAN HISTORY. Roman conceptions of the Philosophy of History. The Early Historians, (Peter's Veterum Historicorum Romanorum Reliquiæ); *Cæsar*—Selections from Books VI, VII; *Sallust*—Catiline; *Livy*—Selections from Books I, IX, XXI; *Tacitus*—Annals I, XV; Histories V. Short studies in *Nepos*, *Velleius Paterculus*, *Valerius Maximus*, *Quintus Curtius*, *Suetonius*. Discussion of various historical problems. One-half year, two hours per week.

(*e*) ROMAN PHILOSOPHY.—History and aspects of Philosophy in Rome. Stoics, Epicureans, Sceptics and Eclectics. *Lucretius*, Selections from De Rerum Natura; *Cicero*, De Finibus I, De Officiis I, De Natura Deorum III; *Seneca*, De Providentia Liber. Roman treatment of various philosophical problems. One-half year, two hours per week.

ENGLISH.

The following courses are offered :

1. *History of the English Language.*—One-half of the first half-year. Two hours a week. Required of Freshmen. Lounsbury's History of the English Language, Part I.

2. *Advanced Rhetoric.* Essays. Remainder of the year. Two hours a week. Required of Freshmen. Genung's Rhetoric and Rhetorical Analysis.

3. *Applied Rhetoric.*—Composition work, with constant reference to Genung's Rhetoric. Frequent themes in and out of the class room. First half-year. Two hours a week. Required of Sophomores.

4. *American Literature.* Authors studied: Irving, Cooper, Poe, Bryant, Hawthorne, Longfellow, Emerson, Thoreau, Lowell, Holmes, Whittier. Essays. Second half-year. Three hours a week. Required of Sophomores (except as stated on page 24). Open to Juniors and Seniors.

5. *Victorian Literature.*—Authors studied: Carlyle, Tennyson, Newman, Arnold, Ruskin, Robert Browning. Essays. First half-year. Two hours a week. Elective for Juniors and Seniors.

6. *English Literature.*—From the Anglo-Saxon Conquest to Milton, inclusive. Pancoast's Introduction to English Literature used as an outline. The principal literature of the Anglo-Saxon and Early English periods taken up rapidly, and Chaucer, Spenser, Bacon and Milton studied carefully. Essays. First half-year. Three hours a week. Elective for Juniors and Seniors.

7 *The Elizabethan Drama.*—Marlowe, Ben Jonson, Beaumont and Fletcher, Webster, studied with Thayer's Best Elizabethan Plays. The bulk of the half-year devoted to Shakespeare. A number of his plays read rapidly, with special attention to the development of his genius; The Merchant of Venice and King Lear read critically. Essays. Second half-year. Three hours a week. Elective for Juniors and Seniors.

8. *English Poetry.*—From Dryden to Wordsworth. Pancoast's Introduction to English Literature used as an outline. Authors studied: Dryden, Pope, Thomson, Gray, Cowper, Burns, Scott, Byron, Moore, Shelley, Keats, Coleridge, Southey, Wordsworth. Each student writes an exhaustive essay on one author, for criticism by the class. First half-year. Three hours a week. Elective for Juniors and Seniors.

9. *English Prose.*—From Bunyan to DeQuincey. Authors studied: Bunyan, Addison, Swift, Johnson, Goldsmith, Burke, Macaulay, Lamb, DeQuincey. Each student writes an exhaustive essay on one author, for criticism by the class. Second half-year. Three hours a week. Elective for Juniors and Seniors.

DEPARTMENT OF MODERN LANGUAGES.

GERMAN LANGUAGE AND LITERATURE.

GERMAN A:

Elementary Course—Four hours. Joynes-Meissner's Grammar. Andersen's Maerchen. Storm: "Immensee." Hauff: "Das Kalte Herz," "Die Karavane." Eichendorff: "Aus dem Leben eines Taugenichts."

GERMAN B:

Intermediate Course—Four hours. Riehl: "Fluch der Schoenheit." Jensen: "Die braune Erica." Chamisso: "Peter Schlemihl," Heine: "Harzreise." Gerstaecker: "Germelshausen." Lessing: "Minna von Barnhelm." Schiller: "Wilhelm Tell." Lyrics and Ballads. Von Jagemann's Prose Composition and Syntax.

GERMAN C:

Introduction to the Study of German Literature—Two hours. Lessing, Goethe, Schiller. Lectures. Essays. (Rollestone's life of Lessing, Sime's Goethe, Palleske's Schiller.)

GERMAN D:

The Nibelungen-Lied, and the classic Period of the 12th Century—Two hours. Hartmann von Aue, Wolfram von Eschebach, Gottfried von Strassburg. Lectures and collateral reading.

GERMAN E:

A course of thirty lectures on some special topic in German Literature. In 1895-6 was studied:

The Faust-legend and its Development, and Goethe's Faust.

Synopsis of the Course:

CHAPTER I. Kindred Legends before the 16th Century:
(*a*) Simon Magus. (*b*) Ahasverus. (*c*) Anthemios, Proterius and Theophilus. (*d*) Cyprianus Antiochus. (*e*) Tannhaeuser and Don Juan.

CHAPTER II. The historic Faust; the "Faustbuch" of 1587 and its development; the "Puppenspiele."

CHAPTER III. Faust Dramas before the 18th Century.
(*a*) Calderon's "El Magico Prodigioso."

(*b*) Marlowe's "Tragical History of Doctor Faustus."

CHAPTER IV. Faust in the 18th Century.

Lessing's Fragment; Maler Mueller, Klinger, etc.

CHAPTER V. Goethe's Faust.

(*a*) The "Urfaust."
(*b*) Faust, Part I, 1808.
(*c*) Faust, Part II.

This course is conducted entirely in German. The class meets once a week. Open to the public.

GERMAN F:

Middle High German. Braune-Paul's Mittelhochdeutsche Grammatik. Nibelungenlied. Kudrun. Walter von der Vogelweide, or:

Gothic. Braune's Gotische Grammatik. Heyne's Ulfilas. Introduction to Germanic Philology.

FRENCH LANGUAGE AND LITERATURE.

FRENCH A.

Elementary Course—Four hours. Edgren's French Grammar. Super's Reader. Reading at Sight. About: Le Roi des Montagnes. Halevy: L'Abbe Constantin.

FRENCH B:

Intermediate Course—Four hours. Chassang's Grammaire Francaise, Cours moyen. Dictation. Sandeau: Mlle de la Seigliere. George Sand: La Mare au Diable. Corneille: Le Cid, Horace. Racine: Andromaque, Athalie. Moliere: Le Bourgeois Gentilhomme, Les Precieuses Ridicules, L'Avare. Bowen's French Lyrics. La Fontaine: Fables. Modern prose writers.

FRENCH C:

Introduction to French Literature—Two hours. Corneille, Racine, Moliere, Regnard, Lesage, Voltaire, Jean Jacques Rousseau. Lectures.

FRENCH D:

History of French Literature—Two hours. Lectures and collateral reading. 2 theses.

FRENCH E:

A special study of Jean Jacques Rousseau, and a comparison between Rousseau and Byron.

SPANISH LANGUAGE AND LITERATURE.

SPANISH A:

An Elementary Course in Spanish.—Duque's Spanish in Spanish. Practice in reading, writing and speaking.

SPANISH B:

Cervantes, Lope De Vega. Calderon. Alarcon. Composition.

MATHEMATICS AND ASTRONOMY.

The courses offered in this department include the following subjects:

1. *Plane Trigonometry.*—The functions of one and two angles; the solution of triangles; simple applications. 13 weeks. 4 hours a week.

2. *Solid Geometry.*—Planes and Lines in Space; Polyhedra; the Cylinder, Cone and Sphere. 8 weeks. 4 hours.

3. *Spherical Trigonometry.*—With simple applications. 6 weeks. 4 hours.

4. *Algebra.*—Series; the Binomial Theorem; Exponential and Logarithmic Series; Numerical Equations of any Degree. 7 weeks. 4 hours.

The foregoing, for students in the A. B. and Ph. B. courses, complete the requirements in pure mathematics, and are all contained in the work of Freshman year. Candidates for the degree of Sc. B. must present these subjects as part of their preparation for college. (See p. 19.) All but the Algebra are prerequisite to any of the following.

5. *Analytical Geometry.* (*Elementary*).—Plane Loci of First and Second Order. First half-year, four hours. Required of Freshmen in the Sc. B. course. In the A. B. and Ph. B. course, alternative with Astronomy,—12 below,—in the Sophomore year.

6. *Analytical Geometry* (*continued*).—(Course 5 prerequisite.) More thorough study of plane loci, with the elements of the tridimensional geometry. Second half-year, three hours. Required of Freshmen in the Sc. B. course. For Sophomores in the A. B. course, alternative with Greek, in the Ph. B. with American Literature.

7. *Calculus, Differential and Integral.*—Required in some of the courses leading to the degree of Sc. B., elective in others. (See p. 28.) Elective to Juniors and Seniors in the A. B. and Ph. B.

courses. Course 5 prerequisite. The course continues through a whole year; but when it is elective, the first half-year may be taken without the second. Four hours a week.

8. *Projective Geometry.*—(Cremona's treatise.) Second half-year, four hours a week. Elective in the Sc. B. course and to Juniors and Seniors in the A. B. and Ph. B. courses.

9. *History of Mathematics.*—(Cajori's text-book.) Second half-year, two hours a week. Elective.

10. *Higher Algebra and Higher Plane Curves.*—(Selections from Salmon's works) Course 7 prerequisite. Three hours a week through the year. Elective.

11. *Theory of Substitutions.*—(From Netto.) Two hours. Elective to candidates for the degree of Sc. B. in Senior year.

12. *Astronomy* (*Elementary.*)—Required in some of the courses leading to the degree of the Sc. B., in Junior year. To A. B. and Ph. B. Sophomores, alternative with Analytical Geometry (5 above). Elective to Juniors and Seniors. First half-year, four hours. The descriptive rather than the mathematical side of astronomy is emphasized, and the work conducted chiefly in the form of recitations from a text-book. Young's General Astronomy has been used.

13. *Astronomy*, (*Observations and Computations*).—The student is expected to make free use of the telescope. Second half-year, four hours. This course, for Sc. B. students, is in continuation of the preceding. It is also elective to Juniors and Seniors in the A. B. and Ph. B. courses, but the above (12) is ordinarily prerequisite.

14. *Mathematical Astronomy.*—Planetary Orbits, etc. Two hours. Elective to Sc. B. students in Senior year.

PHYSICS.

PHYSICS A:

Four hours per week, one year. Required for the degree of A. B. This is a general course taught by text-book and informal lectures. A prominent feature of the course is laboratory practice consisting largely of measurements.

PHYSICS B:

Two hours per week, one year. Required for the degree of Ph. B. This is a laboratory course on measurements for students who already have had an elementary course in Physics. To insure the mastery of the theory, the student is expected to consult works on Physics in connection with each experiment.

PHYSICS C:

Four hours per week, one year. Required for the degree of Sc. B. This general course is given to students who have had courses in elementary physics and in mechanics. The laboratory work is substantially the same as in *Physics B*. The class-work embraces Electricity and Magnetism, together with two out of the three following subjects: Heat, Light, Sound.

PHYSICS D:

Two hours per week, one year, elective. Lectures on Molecular Physics. The student is assigned reading in Maxwell, Preston and Ostwald.

PHYSICS E:

Two hours per week, one year, elective. Applications of Electricity.

PHYSICS F:

Two hours per week, one year, elective. More advanced laboratory practice.

PHYSICS G:

Two hours per week, one year, elective. More advanced course on Light or on Electricity and Magnetism.

ELEMENTARY MECHANICS.

Three hours per week, second half-year. Prerequisite for *Physics C*. The course embraces (1) the solution of numerous problems involving the composition and resolution of forces, accelerations and velocities, or the calculation of work, energy and momentum, (2) the determination of the moments of inertia of a few regular figures, (3) the derivation of the formulæ for the time of oscillation of a simple pendulum.

CHEMISTRY.

REQUIRED WORK.

Sophomore Class, A. B. Course. Beginning Chemistry.—The work of the class includes four recitations and four periods of laboratory work per week, throughout the year.* Laboratory work and occasionally lectures may take the place of recitations, but at such times there will be required additional hours in the Laboratory in lieu of the preparation of lessons. The work of the year is given chiefly to the study of Inorganic Chemistry. It includes General Descriptive Chemistry with certain laws applicable to chemical phenomena, the preparation in the Laboratory of elementary bodies and their more important compounds, and the verification of statements in the text-books, measurements, manipulation, etc. Sufficient practice is given in Qualitative Analysis to enable the student to detect many of the more common acids and bases and in Quantitative Analysis a few simple determinations are required, to accustom the student to accurate work. The experimental work which, besides other practice, includes the experiments recommended by the "Committee of Ten," or their equivalents, is made very thorough and exacting, to insure a practical familiarity with the substances studied and with the methods of manipulation practiced in laboratories. It is deemed highly important that habits of careful work and accurate observation shall be acquired at the beginning of the student's scientific training. The text-book for this year is Remsen's Introduction to the Study of Chemistry, or some other approved work.

---

* The periods of recitation and laboratory work taken together count as four per week upon the time requirements of the year. In order, however, that the hours taken for this subject may not be proportionately excessive, the laboratory work is considered a part of the usual preparation of lessons, and the length of time exacted for study or writing is made correspondingly short

Sophomore Class, Ph. B. Course. Second Year Work.—The subject is so presented as to give a general knowledge of Chemistry and to furnish a basis for the scientific studies of the Junior and Senior years. Nine periods per week during the year are required.* Recitations and lectures are employed, as occasion may require, for the purpose of instruction; and work in the Laboratory is systematically and constantly pursued under the supervision of the instructor. The experimental work supplements and illustrates, as far as practicable, the theoretical and descriptive portions of the subject; and includes a practical though quite abbreviated acquaintance with Analytical and Synthetic Chemistry. The principles of Chemistry, its practical application in the arts, and its uses in the explanation of the phenomena of daily life, are brought prominently forward in the course, and the student is also trained to obtain readily from technical works the data and details familiar only to the professional chemist. Special series of experiments will, from time to time, be required; and written reports upon the work must be handed in. The preparation of abstracts from books on Chemical Technology and Sanitary Science will occasionally take the place of the general work. Roscoe's Elements of Chemistry will be used for study and reference during this year. The experimental work corresponds in character, though not in extent, to that given in Reynolds' Experimental Chemistry.

---

* See foot note on page 40.

ELECTIVE WORK (ADVANCED).

The following electives have been arranged for students who wish to continue the chemical work of the Sophomore year—Ph. B. Course:

(a) *General and Applied Chemistry.*—This course follows in the main, the outlines of the work of the required course. Theoretical Chemistry is much more fully treated, and more elaborate and delicate experiments are required, but the preparation of inorganic compounds constitutes the greater portion of the laboratory work. The more recent advances, both in theoretical and applied chemistry, are noted and discussed in connection with the various elements, or groups under consideration. The applications of chemistry to the arts are studied in greater detail, and the modern uses of chemistry in the sciences of Biology, Medicine, Geology, etc., are treated as fully as the length of the course will permit. Instruction is given in part by lectures, but references are freely made to the works of Remsen, Fownes, Roscoe and Schorlemmer, etc., for particular subjects. Certain works on Sanitary Science are assigned for private study and the preparation of abstracts and written discussions. In lieu of the usual preparation of lessons for recitation, students are required to perform in the Laboratory the experiments given in the lectures and such others, in addition, as may be outlined for practice. The hours of lecture and recitation are four per week, continued for one year. The hours required for Laboratory work are six per week for the same period. Both together count as four hours on the time requirement of the year.

(b) *Qualitative Chemical Analysis.*—This course is open only to students who, by previous study of General Chemistry, are properly qualified for the work. The time occupied by the course is one year, and the hours required for laboratory work are equivalent to two consecutive periods, four days per week, both together being counted as four hours on the time requirement of the year. The lectures will be given at such hours and at such intervals as shall be best suited to the class. A text-book for reference and study will be assigned at the beginning of the year. The work of the course comprises experimental drill in obtaining characteristic reactions of the more common elements, study of empirical formulæ and symbolic expression of reactions, solution of substances, separation of groups of elements, and finally analysis—first of simple salts and later of complex mixtures. The analytical work is confined almost wholly to inorganic substances, but includes certain common organic acids and a few organic bodies of general and medicinal use. The final examination is both experimental and theoretical in character.

(c) *Quantitative Chemical Analysis.*--The course in Quantitative Analysis presupposes a knowledge of General Chemistry and Qualitative Analysis. In it are included the volumetric measurement of liquids, the accurate use of fine balances, and the general subject of stoichiometry. In the earlier part of the course, the student is made familiar with gravimetric and volumetric determinations of single elements, by approved methods. Complete analysis of simple salts follows next in order. Salts, alloys, minerals, ores, slags and mineral water, are among the substances required to be analyzed by the student. The analysis of inorganic substances only is studied in this course. As a final part of his work in the course, the student is given practice in a few of the commercial or rapid determinations of the constituents of ores and minerals.

The course occupies one year for its completion. The laboratory work occupies three consecutive hours, five days per week, (counted as five hours on the time requirement of the year.) Lectures will be given at intervals through the course. The text-book for this year will be Quantitative Analysis, by Cairns.

COURSE IN CHEMISTRY

Leading to the Degree of Bachelor of Science.—An outline of this course is given on page 28. It includes as required studies the electives marked (a) and (b), outlined above, Organic Chemistry, and Theoretical Chemistry. The electives in the line of Chemistry which may also be taken in this course are:—Quantitative Analysis, (the same as (c) above), Molecular Physics, (as given in the course in Physics), and Applied Chemistry. Other subjects must be chosen from the electives offered in other courses, to make up the full number of schedule hours required.

DEPOSITS, CHEMICALS, SUPPLIES, ETC.

The cost of chemicals, glassware and supplies used by students in any of the courses mentioned, must be defrayed by themselves.

A deposit, estimated as probably sufficient to cover the ordinary expenses of the work, must be made by each student, with the instructor, at the beginning of the term. Any balance remaining will be returned at the completion of the course. Glassware and general supplies, (but not chemicals), if in condition to re-issue, may be returned, subject to a small discount. The deposit required for each course is as follows:

General Chemistry—Preparatory course	$ 4 00
General Chemistry—Sophomore year, A. B. course	5 00
General Chemistry—Sophomore year, Ph. B. course	6 00
General Chemistry—Elective course	10 00
Qualitative Analysis—Elective course	15 00
Quantitative Analysis—Elective course	15 00
Organic Chemistry—Elective course	15 00

BIOLOGY.

Elementary Biology.—Required of Freshmen in the Bachelor of Philosophy and Bachelor of Science divisions. The course extends through the year; three laboratory exercises a week, usually of two hours each, with additional work at the discretion of the instructor. In the first half-year, the lower forms of plant and animal life are studied, such as Amœba, Infusoria, Corals, Echinoderms, Yeast, Mould, Spirogyra, etc. In the second half-year, following the plan of the previous work, higher forms are studied, such as Exogens, Endogens and Gymnosperms; Crawfish, Clam, Snail, Frog, Cat, etc. Text-books, Colton's Practical Zoology and Bergen's Elements of Botany.

Structural and Systematic Botany.—Required of Sophomores in the Biology division of the Sc. B. course; four times a week throughout the year. The first half-year is devoted to the study of the Cryptogamia. Aside from the collection of plants, and occasionally prescribed readings or recitations, the work is performed in the laboratory. As reference works, the writings of Sachs, De Bary, Bessey, Cooke, Fries, etc., are used. The second half-year is given to the Flowering Plants, its work including recitations, plant description and analysis, and the formation of an herbarium. A minimum of forty species of flowering plants correctly determined, described, and mounted, is a requirement in this study. Text-books, Gray's Lessons and Coulter's Rocky Mountain Botany.

Zoology.—Required of Sophomores in the Biology division of the Sc. B. course. Recitations and laboratory work; three times a week throughout the year. Text-book, Packard's Zoology.

Comparative Anatomy of Invertebrates.—Required of Juniors in the Biology division of the Sc. B. course; three times a week throughout the year. Laboratory work, with references to writings of Huxley, Gegenbaur, etc.

Comparative Anatomy of Vertebrates.—Required of Seniors in the Biology division of the Sc. B. course; twice a week throughout the year. Laboratory work, with reference to the writings of Flower, Wiedersheim, Huxley, Cuvier, etc.

Comparative Embryology.—Required of Seniors in the Biology division of the Sc. B. course; twice a week throughout the year. Recitations and laboratory work. Text-books, Hertwig, Korschelt, and Heider's Text-book of Embryology, (translated by Mark and Woodworth).

GEOLOGY.

The study of Geology is peculiarly attractive in this section of the State. In few localities can be found the exposed strata of so many and diverse geological ages, or so varied an assemblage of rock and mineral species. Fossils of both earlier and later formations are abundant in many localities. Orogenic forces, faults, veins, dikes, flood plains, caves, river-erosion, sand-carving and glacial action are all well illustrated near at hand.

To the wealth of geological illustration that nature presents to the student in this district, the College Museum and a selection of lantern slides add many instructive specimens and views.

Geology.—Required of Sophomores in the Ph. D. division and of Sophomores in the Geology course and Juniors in the Biology course of the Sc. B. division; four times a week through the year. Recitations and special exercises, supplemented by excursions to points of geological interest. In the first half-year, Dynamical and Structural Geology are studied; in the second, Historical Geology. Text-book, LeConte's Elements of Geology.

Mineralogy.—Required of Sophomores in the Geology course of the Sc. B. division; twice a week through the year. This study is approached both from the physical and from the chemical side. The work consists, in part, of recitations in Descriptive Mineralogy, but more largely of laboratory practice in the determination of minerals. Text-book, Dana's Mineralogy and Petrography.

Lithology.—Required of Juniors in the Geology course of the Sc. B. division; three times a week through the second half-year. Recitations from prescribed parts of Rosenbusch's Microscopical Physiography of the Rock-Making Minerals (Idding's translation); preparation of microscopical sections of rocks, followed by determinative work.

Economic Geology.—Required of Juniors in the Geology course of the Sc. B. division; three times a week through the first half-year. Recitations, with reference to illustrative specimens, and occasional visits to geological localities of special economic interest to industries based on geological resources. Text-book, Tarr's Economic Geology.

Invertebrate Paleontology.—Required of Juniors in the Geology course of the Sc. B. division; twice a week throughout the year. Laboratory study of fossils of principal groups is preceded, for the most part, by a study of recent forms of the same or allied groups, The student is guided in the consultation of leading authorities, such as Zittel, Steinmann and Dœderlein, Berdard, Nicholson, Tryon, etc.

Vertebrate Paleontology.—Required of Seniors in the Geology course of the Sc. B. division; twice a week throughout the year. Laboratory studies in the Comparative Osteology, Taxonomy, and Evolution of the Vertebrata. The student makes use of the general works and monographs of Flower, Zittel, Huxley, Cuvier, Leidy, Cope, Marsh, etc.

Geological Surveying.—Required of Seniors in the Geology course of the Sc. B. division; three times a week throughout the year. Topographical and geological survey of assigned area; construction of topographical maps and of geological maps and sections; collection and identification of its fossils; special study of the relations of its terranes to those of geologically allied areas elsewhere. All results to be embodied, at the end of the year, in a formal theses or report.

ECONOMIC, POLITICAL AND SOCIAL SCIENCE.

The instruction in Political Economy consists of a systematic course in the general theory, required of all students, followed by elective courses in special subjects. The systematic course is a prerequisite for the pursuit of any of the elective courses.

Systematic Political Economy. Required of Juniors; a systematic course in the elements. Recitations, discussions, assigned reading, reports and lectures. Text: Walker's *Political Economy* (*Adv. Course*). Three hours per week, first term.

Public Finance: Senior Elective. This course treats of taxation, public expenditure, public debts and the budget. Introduction is given mainly by lectures with reading in various systematic treatises and monographs. Text: Bastable's *Public Finance.* Three hours a week, first term.

Money and Banking: Junior and Senior elective. An historical and theoretical course in money and banking, treating especially, the history of prices, bimetallism, paper money, bank notes, etc. Lectures, recitations, reports and discussions. Text: Jevons's *Money and the Mechanism of Exchange.* Two hours a week, second term.

Railroads: Junior and Senior elective. A course on the history of transportation and its present problems, with especial reference to the relations of the railroads to the State and the public. Lectures and recitations, etc. Text: Hadley's *Railroad Transportation.* Two hours, second term.

Two courses are offered in Political Science; first an historical course showing the broad political features of the various historical forms of government; second, a comparative study of the chief existing governments.

Historical Politics: Junior and Senior elective. This course aims to place the origin and growth of government from its primitive forms to the establishment of the modern states, studying successively the semi-amorphous horde, gentile society, the city, State, the Roman Empire, the ancient Germanic folk, the feudal system, the political system of the Church, the Holy Roman Empire, the rise of national states, the development of constitutional and absolute monarchy, the triumph of democracy, etc. The course is conducted mainly by means of lectures supplemented by recitations, reports and extensive outside reading. Text: Wilson's *State.* Three hours a week, first term.

Comparative Politics and Constitutional Law: Junior and Senior Elective. This course is a study and comparison of the governments of the chief modern states. It aims to give an exposition of the constitutional law of the several states and their actual political organization. The great problems of federalism and centralization, of presidential and responsible ministerial government and of the guarantees of civil liberty receive especial consideration. This course is given by means of lectures, recitations and collateral reading. Text: Wilson's *State.* Three hours a week, second term.

Socialism: Junior and Senior Elective. An historical and critical course in socialism and socialistic theory. Especial attention is paid to the historical basis of socialism, and also to the various attempts at socialistic reform such as co-operation, profit-sharing, etc. Lectures and recitations. Texts: Ely's *French and German Socialism*, and Schaeffle's *Quintessence of Socialism.* Two hours a week, second term.

HISTORY.

Two courses are offered in history—English history and the history of the United States. It is desirable that the student should pursue the first before undertaking the second. In 1897-8 a course will be offered in the history of Western Europe from the Crusades to the Peace of Westphalia. The literary, artistic, social and economic aspects of the period will receive consideration.

English History: Junior and Senior Elective. A course in the political history of England from the earliest times to the American War. The course is conducted chiefly by recitations and collateral reading supplemented by lectures on the constitutional development. Text: Gardiner's *Student's History of England.* Four hours a week, first term.

United States History: Junior and Senior Elective. A course in the history of the American colonies and the United States until recent times. This course is conducted by recitations, reading and lectures. Text: The *Epochs of American History* Series. Four hours a week, second term.

BIBLE STUDY.

One hour a week throughout the year. Open as an elective to Juniors and Seniors. Freshmen and Sophomores, if able to take the work, will be allowed advanced credit on Junior and Senior electives. Academy students will be allowed to enter the class, but will receive no credits.

The following courses are offered, of which the class will take one:

I. Introduction to the Books of the New Testament.
II. Studies in the Gospel of Luke.
III. Studies in the Epistle to the Galatians.
IV. The Closing Period of the Life of Christ.
V. The Manuscripts and Versions of the New Testament.
VI. Studies in the Life of St. Paul.

ORATORY.

The aim of this department is to develop the individual oratorical forces of the student, and to help him to that command of his powers as thinker and speaker, which is necessary for a natural and effective public delivery. Exercises in elocution and public declamations are required during Freshman and Senior years. Students have regular class drill in voice culture and in the elementary principles of gestures and proper use of voice, but the main dependence is placed upon individual training. Every student is given thorough individual drill upon declamations or original orations. A prize declamation contest is held every year open to members of the Freshman class.

Public Speaking, as an elective study, is open to members of the Junior and Sophomore classes. The work consists in the composition and delivery of orations and prepared debates, discussions and extemporaneous speeches. As one aim of the College is to prepare students for the duties of citizenship, the subjects discussed are largely political as well as those of social and economic interests. A prize debate, open to students taking this course, is given during Commencement week.

PHYSICAL CULTURE.

As the students of Colorado College are drawn from all sections of the country, many of them by considerations of health, especial attention is given to the individual needs of each. A skilled physician is in regular attendance, who acts in concert with the Director of this department. Every one who enters college is advised, on the basis of a thorough physical examination, in regard to the character of the work best adapted to build up a strong and healthy system. Measurements are taken of each student; who is also provided with the "Gulick's Anthropometric Chart" by which the deficiencies of each in physical development are made plain at a glance and the exercise indicated which is necessary to bring the measurements up to the standard of symmetry. Dr. Taylor has offered a book as a prize to each of the two students among the young women who shall, in June, 1896, be proved by a repetition of the measurements to have made the greatest physical gain.

The gymnasium is a separate building, heated by steam, and well fitted with all the necessary modern appliances for the most approved methods of physical exercise. The basement is provided with lavatories containing shower-baths (hot and cold water), lockers and private dressing rooms.

Regular exercise is required of all the students, and the work is adapted to the needs of each. Class drills are held for young men and young women, separately. Instruction is given in hygienic, educational, competitive and recreative work, and care is taken that each branch may receive its due attention. In addition to this, students may undertake individual work under the advice of the Director, and may have special hours assigned for this purpose.

Out-door exercise is recommended in the majority of cases, while the sunny climate of Colorado Springs makes it possible for such exercise to be taken with great regularity through almost the entire year. Colorado College possesses one of the three college golf clubs of the country. This popular game is now being recommended by physicians as especially adapted to the needs of those who are unable to participate in more violent exercise, while the beautiful country and delightful open winters admit of its being played the year round, and make it very popular. Tennis is also played during the entire season. Several new tennis courts have been laid out upon the College grounds and the facilities are sufficient to accommodate all those who wish to exercise in this way. The College is also represented in base-ball, foot-ball, tennis and field sports in a State intercollegiate league. A regular field-day meet takes place during the month of May, and the base-ball and tennis matches are played during the spring term, while the foot-ball matches take place in the fall of the year.

An athletic field, admirably fitted both by situation and size for all out-door sports, has been laid out behind the College buildings.

The athletic interests of the College are controlled by an advisory board consisting of two members from the faculty, two from the city, one or two from the alumni, and one representative from each of the college classes. This board advises the students in all their sports, audits the accounts of managers, and raises and authorizes the expenditure of money for various athletic interests.

PRIZES AND HONORS.

College Scholarship Honors of two grades are awarded in June for excellence in the work of the year. The Honor list for 1894-5 was as follows:

HIGH HONORS.

Frank Kelton Bailey, of Leadville, *Class of* 1898.
Anna Pearl Cooper, of Colorado Springs, *Special Student*.

HONORS.

Class of 1895:

Jonathan Taylor Rorer, Jr., of Colorado Springs.

Class of 1896:

Winona Bailey, of Leadville.
Massie Ethel Gandy, of Colorado Springs.
Herman G. A. Brauer, of Adelaide, South Australia.

Class of 1897:

Fannie J. Bayley, of Denver.
Ella L. Taylor, of Colorado Springs.

Class of 1898:

Della N. Gandy, of Colorado Springs.
Marguerite E. Upton, of Denver.

A prize for proficiency in Latin is offered annually for competition among members of the Freshman Class. It consists of ten dollars' worth of books. In was awarded in May, 1895, to

Della N. Gandy, of Colorado Springs.

A prize for proficiency in Greek, consisting of ten dollars' worth of books, is offered annually for competition among members of the Fourth Academy Class.

SCHEDULE OF RECITATIONS.

HOUR.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
1 8:30	I. Latin. II. Greek. III. Elocution. Fr. Latin. Soph. Chemistry (A. B.) Soph. Geology. [Jun. Political Economy]	I. Latin. II. English. IV. Mathematics. German B. Soph. Chemistry (A.B.) [Jun. Political Economy.] Sen. Elocution.	I. Latin. II. Algebra. IV. English. Fr. Latin. Soph. Greek. Soph. Chemistry (Ph.B.)	I. Latin. [II. Physiography.] *II. Physiology.* III. Elocution. IV. Mathematics. Fr. Latin. Soph. Greek. Soph. Chemistry (Ph. B.) [Jun. Political Economy]	I. Latin. II. Algebra. III. Greek. Fr. Latin. Soph. Chemistry. (Ph.B.) Sen. English.
9:20	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.
2 9:45	[I. Roman History.] *I. English History.* II. Latin. III. Latin. German A. Soph. Chemistry (A. B.)* Physics A.	I. Elocution. II. Latin. III. Latin. IV. Greek. Fr. Mathematics. *Fr. Mechanics.* Soph. Chemistry (A. B.)* Soph. Geology.	[I. Roman History.] *I. English History.* II. Latin. III. Latin. IV. Greek. Fr. Mathematics. Soph. Chemistry (Ph.B.)* Physics A.	I Elocution. II Latin. III. Latin. IV. Greek. Fr. Mathematics. Soph. Chemistry (Ph.B.)*	II. Latin. III. English. Fr. Mathematics. Soph. Greek. Soph. Chemistry. (Ph.B.)* Physics A.
3 10:35	I. Algebra. II. English. IV. Greek. Soph. Latin. Soph. Chemistry (Ph.B.) [Mechanical Drawing.]	I. Algebra. II. Greek. IV. Latin. Fr. Biology. *Soph. Logic.* [Astronomy.]	I. Algebra. II. Greek. III. Geometry. IV. Latin. German B. Soph. Chemistry (A. B.)	I. Algebra. II. Greek. IV. Latin. Fr. Biology. *Soph. Logic.* [Astronomy.]	I. Algebra. II. Greek. III. Geometry. IV. Latin. German B. Sen. Elocution.

4 11:25	III. Greek. IV. Physics. Soph.Chemistry (Ph.B.)* Jun. English. [Mechanical Drawing.]*	III. Greek. Fr. Biology.* Soph. Latin. Physics B and C. Sen. English.	III. English. French B. Soph. Chemistry A B. Soph. Geology. Jun. English.	III. Greek. German A. Fr. Biology.* Soph. Latin. Physics B. Sen. English.	[II. Government.] *II. Greek History.* French A. Fr. Greek. Soph. Chemistry A B. Physics C. Jun. English.
5 12:15	[II. Physiography.] *II. Physiology.* IV. Latin. French A. Soph. Chemistry (Ph.B.)*	II. Government. *II. Greek History.* III. Geometry. French A. Soph. Greek. Physics B and C.*	III. Greek. German A. Physics C.	III. Chemistry. French B. Physics B.*	III. Latin. IV. Greek. French B. Soph. Chemistry A. B.* Physics C.*
6 2:30	I. English. II. Drawing. Fr. Greek. Fr. Biology. *Soph. Logic.* Physics A.	I. English. [II. Physiography.] *II. Physiology.* III. Chemistry. Fr. English. Analytical Geometry. Jun. Psychology.	[II. Physiography.] *II. Physiology.* III. Chemistry. IV. Physics. Fr. Greek. Analytical Geom. Jun. Psychology.	I. English. Fr. English. [Analytical Geom.] *Alt. Soph. Latin.*	I. English. III. Chemistry. [Mech. Drawing.] Analytical Geom. Jun. Psychology.
7 3:20	II. Drawing.* III. English. Fr. Biology.* Soph. English. Physics A.*	III. Chemistry.* IV. Physics. French B. [Sen.History Philosophy] *Sen. Ethics.*	III. Chemistry.* IV. Physics.* Fr. Elocution. Astronomy. [Sen. Hist. Philosophy.] *Sen. Ethics.*	II. English. III. Geometry. *Fr. Mechanics.* Soph. Geology. [Sen. Hist. Philosophy.] *Sen. Ethics.*	III. Chemistry.* IV. Physics. Fr. Elocution. [Mech. Drawing.]* *Soph. English.* Astronomy. [Sen. Hist. Philosophy.] *Sen. Ethics.*
8 4:10	German B. *Fr. Mechanics.*	German A.	Soph. English.	French A. Physics C. Sen. Philosophic Semin.	

[Bracketed titles] are for first half year only. *Itaticized titles* are for second half year only. The hours of gymnasium exercise, as well as those of elective studies, are inserted in the schedule at the opening of the academic year. *Continued from the preceding period.

THE CUTLER ACADEMY—FACULTY

William Frederick Slocum, Jr.,
Principal.

M. Clement Gile,
Greek—Assistant Principal.

Louis A. E. Ahlers,
French and German.

Florian Cajori,
Physics.

Francis Whittemore Cragin,
Physiology and Physiography.

George A. H. Fraser,
Latin.

Frank Herbert Loud,
Mathematics.

Paul M. Mead,
Physical Culture.

Atherton Noyes,
English and Greek.

Marion McGregor Noyes,
Latin.

Edward S. Parsons,
English.

Arthur F. Stearns,
Elocution.

William Strieby,
Chemistry.

Hannah L. Taylor,
Physiology and Hygiene.

Francis Walker,
History and Government.

THE CUTLER ACADEMY.

This fitting school, named in honor of one of the most generous and steadfast friends of Colorado College, (Henry Cutler, of Massachusetts,) provides a thorough preparation for any college in the United States. While the preparatory training is the principal aim, the plan of study is so arranged as to meet the requirements of students who do not propose going on into college work. The course is a thorough one, embracing four years, and the teaching is carefully conducted by experienced instructors, most of whom are also engaged in the work of the College.

Correspondence concerning the Cutler Academy should be addressed to M. C. GILE, Assistant Principal.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the Cutler Academy are expected to have finished the eighth grammar grade in the public schools, or to have covered an equivalent of the following work:

ARITHMETIC—Franklin or Wentworth.

ENGLISH—Reed and Kellogg's Higher Lessons.

HISTORY—Montgomery's United States History.

GEOGRAPHY—Any school Geography.

Applicants for admission who have, within six months, been students in the Colorado Springs High School, must present certificates from the High School showing completion of the work of the grade preparatory to the Academy class which they wish to enter. The High School will, upon payment of a small fee, provide special examinations for this purpose, if the regular examinations were not passed. The Academy will not examine such applicants, unless upon subjects which were not included in their High School course.

Candidates for admission in 1896 are expected to present themselves at Palmer Hall on Tuesday, June 2, or Tuesday, September 22, at 9 A. M. Every applicant for admission must bring a satisfactory certificate of good moral character, together with a full written statement of studies pursued elsewhere. Any student whose influence is felt to be injurious to good scholarship or good morals, will not be permitted to remain in the Academy

COURSES OF INSTRUCTION.

CLASSICAL COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book. Viri Romæ	5
	Algebra: Through Fractions.	5
	English: Keeler and Davis's Studies in English Composition; constant writing; narrations and descriptions; letter writing; the use of words; sentence and paragraph structure; advanced grammar; Longfellow and Hawthorne	4
	(Required Supplementary Readings, see p. 64.)	
	History: Roman	2
	Elocution: Emerson's Evolution of Expression, Vol I.	2
SECOND HALF:	*Latin:* First Latin Book completed. Viri Romæ. Reading at sight	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: Studies in Composition continued; figurative language; qualities of style; versification. Julius Cæsar (Shakespeare); Gayley's Classic Myths	4
	Required Supplementary Readings, see p. 64.	
	History: English	2
	Elocution: Emerson's Evolution of Expression, Vol II	2

SECOND YEAR.

FIRST HALF:	*Latin:* Grammar (Allen and Greenough); Selections from Cornelius Nepos; Cæsar's Gallic War, Books II, IV; prose composition (Daniell); reading at sight	5
	Greek: Grammar (Goodwin); Beginners' Greek Book (White)	5
	English: Genung's Outlines of Rhetoric; choice of words; phraseology; constant writing. Vision of Sir Launfal (Lowell); An Elegy Written in a Country Church Yard (Gray); She Stoops to Conquer (Goldsmith)	3
	Required Supplementary Readings, see p. 64.	
	Algebra: Quadratic Equations completed	2
	Government:	2

SECOND HALF:	*Latin:* Grammar. Cæsar, Bk. I. Ovid, Stories from the Metamorphoses; reading at sight; prose composition	5
	Greek: Grammar. Xenophon (Coy's First Greek Reader); reading at sight	5
	English: Genung continued; special study of style; the sentence. The Ancient Mariner (Coleridge); The Coming of Arthur and the Passing of Arthur (Tennyson); Snowbound (Whittier)	3
	Required Supplementary Readings, see p. 64.	
	Algebra: Proportions, Progressions, and allied topics	2
	History: Greek	2

THIRD YEAR.

FIRST HALF;	*Latin:* Grammar. Cicero, Four Orations against Catiline; reading at sight; prose composition (Daniell)	5
	Greek: Xenophon's Anabasis (Goodwin), two books; reading at sight; written translations; composition (Collar and Daniell)	5
	Geometry: Two Books of Plane Geometry (Beman and Smith)	4
	English: Genung completed; the paragraph, the whole composition, the plan; short themes. Speech on the Conciliation (Burke); The Vicar of Wakefield (Goldsmith); The Rime of the Ancient Mariner (Coleridge)	3
	Required Supplementary Readings, see p. 64.	
	Elocution: Emerson's Evolution of Expression, Vol. IV	2
SECOND HALF:	*Latin:* Grammar. Cicero, Orations for Archias, for Marcellus, and for the Manilian Law; Vergil, Bucolics; reading at sight; prose composition	5
	Greek: Xenophon's Anabasis, two books or an equivalent; reading at sight; composition	5
	Geometry: Plane Geometry completed	4
	English: Macbeth; selections from Burns with Carlyle's Essay; Pope's Homer's Iliad, Books I and XXII	3
	Required Supplementary Readings, see p. 64.	
	Elocution: Emerson's Evolution of Expression, Vol. IV	2

FOURTH YEAR.

First Half:	*Latin:* Grammar. Vergil, Aeneid, Bks I-IV; reading at sight; prose composition......	5
	Greek: Homer, 1,200 lines; composition; reading at sight.................................	5
	German. Grammar. Composition; reading of easy prose selections.....................	4
	Mathematics: Review and General Exercises...	2
	English: Speech on Conciliation (Burke); Marmion (Scott); Tales of a Traveller (Irving); Required Supplementary Readings, see p. 64	1
Second Half:	*Latin:* Grammar. Vergil, Aeneid, Bks V-VI; reading at sight; prose composition; reviews....................................	5
	Greek: Homer, 1,800 lines; written translations; Old Greek Life (Mahaffy); History of Greek Literature (Jebb); composition	5
	German: Grammar. Composition; rapid reading of prose selections; reading at sight..	4
	Mathematics: Review and General Exercises...	2
	English: Life of Samuel Johnson (Macaulay); History of the Plague in London (DeFoe).. Required Supplementary Readings, see p. 64.	1

LATIN-SCIENTIFIC COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

First Half:	*Latin:* Collar & Daniell's First Latin Book. Viri Romæ	5
	Algebra: Through Fractions	5
	English: As in corresponding year and term of Classical Course	4
	History: Roman	2
	Elocution: Emerson's Evolution of Expression, Vol. I	2
Second Half.	*Latin:* First Latin Book completed. Viri Romæ. Reading at sight	5
	Algebra: Through Radicals and Easy Quadratic Equations	5
	English: As in corresponding year and term of Classical Course	4
	History: English	2
	Elocution: Emerson's Evolution of Expression, Vol. II	2

SECOND YEAR.

First Half:	*Latin*: Grammar (Allen & Greenough). Selections from Cornelius Nepos. Cæsar's Gallic War, Books II, IV. Prose Composition (Daniell). Reading at sight	5
	Physiography: Appleton's Physical Geography. Recitations and Lectures	4
	English: As in corresponding year and term of Classical Course	3
	Algebra: Quadratic Equations completed	2
	Government:	2
	Drawing:	1
Second Half:	*Latin:* Grammar. Cæsar, Bk. I. Ovid, Stories from the Metamorphoses. Reading at sight. Prose Composition	5
	Physiology: Huxley's Elementary Lessons in Physiology. Martin's Human Body	4
	English: As in corresponding year and term of Classical Course	3
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2
	Drawing:	1

THIRD YEAR.

FIRST HALF:	*Latin:* Grammar. Cicero, Four Orations against Catiline. Reading at sight. Prose Composition (Daniell)	5
	Chemistry: Williams's Introduction to Chemical Science. Laboratory Practice	4
	Geometry: Two Books on Plane Geometry	4
	English: As in corresponding year and term of Classical Course	3
	Elocution: Emerson's Evolution of Expression, Vol. III	2
SECOND HALF:	*Latin:* Grammar. Cicero, Orations for Archias, for Marcellus, and for the Manilian Law. Vergil, Bucolics. Reading at sight. Prose Composition	5
	Chemistry: Work of first term continued	4
	Geometry: Plane Geometry completed	4
	English: As in corresponding year and term of Classical Course	3
	Elocution: Emerson's Evolution of Expression, Vol. IV	2

FOURTH YEAR.

FIRST HALF:	*Latin:* Grammar. Vergil, Aeneid, Bks, I-IV. Reading at sight. Prose Composition	5
	German: Grammar. Composition. Reading of easy prose selections	4
	Physics: Text Book and Laboratory Practice	4
	Mathematics: Review and general exercises	2
	English: As in corresponding year and term of Classical Course	1
SECOND HALF:	*Latin:* Grammar. Vergil, Aeneid, Bks, V-VI. Reading at sight. Prose Composition. Reviews	5
	German: Grammar. Composition. Rapid reading of prose selections. Reading at sight	4
	Physics: Text Book and Laboratory Practice	4
	Mathematics: Review and general exercises	2
	English: As in corresponding year and term of Classical Course	1

SCIENTIFIC COURSE.

FIRST YEAR.

(The figures denote the number of recitations a week.)

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book. Viri Romae	5
	Algebra: Through Fractions	5
	English: As in corresponding year and term of Classical Course	4
	History: Roman	2
	Elocution: Emerson's Evolution of Expression, Vol. I	2
SECOND HALF:	*Latin:* First Latin Book completed. Viri Romae. Reading at sight	2
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: As in corresponding year and term of Classical Course	4
	History: English	2
	Elocution: Emerson's Evolution of Expression, Vol. II	2

SECOND YEAR.

FIRST HALF:	*Latin:* Grammar (Allen & Greenough). Selections from Cornelius Nepos. Cæsar's Gallic War, Books II, IV. Prose Composition (Daniell). Reading at sight	5
	Physiography: Appleton's Physical Geography. Recitations and Lectures	4
	English: As in corresponding year and term of Classical Course	3
	Algebra: Quadratic Equations completed	2
	Government:	2
	Drawing:	1
SECOND HALF:	*Latin:* Grammar, Cæsar, Bk. I. Ovid, Stories from the Metamorphoses. Reading at sight. Prose Composition	5
	Physiology: Huxley's Elementary Lessons in Physiology. Martin's Human Body	4
	English: As in corresponding year and term of Classical Course	3
	Algebra: Proportions, Progressions, and allied topics	2
	History: Greek	2
	Drawing:	1

THIRD YEAR.

FIRST HALF:	*German:* Grammar. Composition; reading of easy prose selections.	4
	Chemistry: Williams' Introduction to Chemical Science; laboratory practice	4
	Geometry: Two books of Plane Geometry	4
	Algebra: Review and general exercises	2
	English: As in corresponding year and term of Classical Course	3
	Elocution: Emerson's Evolution of Expression, Vol. III	4
SECOND HALF:	*German:* Grammar. Composition; rapid reading of prose selections; reading at sight	4
	Chemistry: Work of first term continued	4
	Geometry: Plane Geometry completed	4
	Algebra: Review and general exercises	2
	English: As in corresponding year and term of Classical Course	3
	Elocution: Emerson's Evolution of Expression, Vol. IV	2

FOURTH YEAR.

FIRST HALF:	*German:* Schiller: Reading of one or more of the dramas; lectures on German literature	4
	French: Grammar; composition; reading of easy prose selections	4
	Physics: Text book and laboratory practice	4
	Mathematics: Solid Geometry; Spherical Trigonometry; advanced Algebra	4
	English: As in corresponding year and term of Classical Course	1
SECOND HALF.	*German:* Lessing: Reading and critical study of one or more of the dramas; lectures by Instructor	4
	French: Grammar. Composition; rapid reading of prose selections; reading at sight	4
	Physics: Text book and laboratory practice	4
	Mathematics: Solid Geometry; Spherical Trigonometry; Advanced Algebra	4
	English: As in corresponding year and term of Classical Course	1

APPENDIX.

REQUIRED SUPPLEMENTARY READINGS FOR ACADEMY ENGLISH CLASSES.

First Academy.—Macaulay's Lays of Ancient Rome; Hawthorne's Wonder Book and Tanglewood Tales; Dickens's Oliver Twist; Scott's Ivanhoe; Aesop's Fables, Gulliver's Travels, Arabian Nights; Rab and His Friends; Burroughs's Birds and Bees; Carroll's Alice in Wonderland; Lamb's Tales from Shakespeare; Tom Brown at Rugby; Kingsley's Water Babies; Ouida's A Dog from Flanders.

Second Academy.—Undine, Sintram, Paul and Virginia; The Boys' King Arthur, Idylls of the King (Tennyson); Wake Robin (Burroughs); The Vicar of Wakefield (Goldsmith); Tales of a Traveller (Irving); A Tale of Two Cities and A Christmas Carol (Dickens); In the Wilderness (Warner); Life of Washington Irving (Fiske); The Chronicles of Froissart; Enoch Arden (Tennyson); Bryant's Iliad; Selections from Southey; The Talisman (Scott); Geology of a Piece of Chalk (Huxley).

Third Academy.—The Lady of the Lake, and the Lay of the Last Minstrel (Scott); Selections from Browning; Sesame and Lilies (Ruskin); A Day in Ancient Rome (Shumway); Pepacton (Burroughs); Selections from the Essays of Elia (Lamb); Sketch Book (Irving); Marjorie Daw (Aldrich); Feats on the Fiord (Martineau); My Summer in a Garden (Warner); Last Days of Pompeii (Bulwer); Ivanhoe (Scott); Marjorie Fleming (Brown); Lorna Doone (Blackmore); Chemical History of a Candle (Faraday), or Walks and Talks in Geological Fields (Winchell).

Fourth Academy.—Palmer's Odyssey (or Leaf's Iliad); Sohrab and Rustum, and The Forsaken Merman (M. Arnold); Selections from Wordsworth; Elegy Written in a Country Churchyard (Gray); The Ancient Mariner (Coleridge); Guy Mannering, and The Heart of Midlothian (Scott); Prue and I (Curtis); Amos Barton (George Eliot); The Man Without a Country (Hale); Picciola (Saintine); Abdallah (Taylor); Pride and Prejudice, or Northanger Abbey (Jane Austen).

LATIN PRONUNCIATION.

The Roman system of pronouncing Latin is used in both Academy and College.

PREPARATION FOR OTHER COLLEGES.

A student who is preparing in Cutler Academy for some other college than Colorado College, where the requirements for admission differ in some particulars, may, by timely application to the instructors, secure such modification of his course as will meet the necessities of his case.

COLORADO COLLEGE CONSERVATORY OF MUSIC.

FACULTY.

RUBIN GOLDMARK,
Director of the Conservatory of Music and Instructor in Harmony, Counterpoint and Composition.

OMA FIELDS,
*Instructor in Piano Forte.**

BLANCHE HERMANN,
Instructor in Piano Forte.

EDITH HUSE,
Instructor in Vocal Sight Reading.

ALBERT C. PEARSON,
Instructor in Piano Forte.†

GEORGE SZAG,
Instructor in the Violin.

FANNY AIKEN TUCKER,
Instructor in Vocal Music.

---

*On leave of absence for study in Europe.

†Resigned.

COLORADO COLLEGE CONSERVATORY OF MUSIC.

PURPOSE AND SCOPE.

The Conservatory of Music was established by the Trustees of Colorado College in the Fall of 1894, with a view of affording a thorough education and superior advantages in all the higher musical branches.

While this movement had long been contemplated, the Trustees and Faculty were unwilling to undertake its organization, until convinced that the same high standards in courses and instruction upheld in the College would be maintained in the Conservatory.

Necessity of the Conservatory.—The student of to-day in search of a better musical education is frequently at a loss whither to turn for instruction. There is certainly no lack of teachers, but the absence of system and of well-established standards that can serve as a guide to the student often occasions considerable loss of time in experimenting, until suitable instruction is obtained. It is safe to assert that in no other branch are so many years wasted in unlearning that which has been badly acquired as in the study of music. By modeling its Conservatory after the best European and Eastern institutions, Colorado College aims primarily at thoroughness of instruction and the maintenance of artistic ideals.

The Object of a Conservatory.—The object of a Conservatory is not to turn out pianists, organists, violinists, or singers. Its chief function is, while enabling the student to acquire technical proficiency in any desired branch of the art, at the same time to mould him into a *musician*. This can be accomplished only by the conservatory. Here the students of the various departments are drawn closely together in the exercise of their art. Co-ordinate branches, into which the private student can with difficulty gain an insight, are opened to view, a musical atmosphere is created, the horizon is widened, and the student unconsciously absorbs much that must prove of inestimable value in his own specialty.

Necessity of Theoretical Study.—The study of *Musical Theory*, for a long time so strangely neglected by the great majority of instrumentalists and vocalists, is of prime importance to every musician. The more he knows of Harmony, Counterpoint, Composition and the general History of Music, the more will his musical culture increase, his artistic view be broadened, his appreciation of the classic works of our great masters be deepened, and the more will he be able to impart to others the fundamental principles whereon musical progress is based.

Theory and Practice Combined.—While laying especial stress on its theoretical department, the Conservatory also provides for a course of illustrated lectures on general musical subjects, and a series of recitals and concerts during each year, thus furnishing the student an opportunity of viewing in practice what he has learned in theory.

Importance of following up other Educational Branches.—Nor can the musician of the present day afford to neglect his general education. Literary and artistic accomplishments should go hand in hand. Languages, æsthetics and belles lettres are of considerable importance to the serious musician. On this account it is especially fortunate that the Conservatory stands in such intimate relation to the College, and that the pupils may avail themselves of its manifold privileges. The director of the Conservatory, or members of the College faculty, will gladly confer with any student and assist him in determining what courses he may advantageously pursue with reference to his particular branch.

RELATION OF THE CONSERVATORY TO COLORADO COLLEGE.

This Department is under the same general supervision as the other departments of Colorado College, and under the immediate management of the Director and Faculty of Music. The general rules of the College apply to students of music also.

For those students of the Conservatory who desire to make use of the collegiate department, the fee for one study in the College is fixed at ten dollars per term, or twenty dollars a year, a twenty per cent. reduction from the usual charge. For two or more studies, the regular tuition of seventeen dollars and a half a term, or thirty-five dollars a year will be charged.

COURSES OF STUDY.

The following courses of study are offered : Piano, violin, organ, voice culture, harmony, counterpoint and composition, in addition to the special advantages to be enumerated further on. Instruction on the other instruments will be provided as soon as a sufficient demand is evident.

CLASS OR PRIVATE INSTRUCTION.

The student is offered a choice between class and private instruction. While there is a general tendency at present to prefer private lessons, attention is called to the marked advantages that result from class instruction. In the former case the pupil has the entire attention of the instructor for the time of the lesson—one half-hour. In the latter, an hour is divided among three pupils. Thus, while the time of actual instruction is ten minutes less for each individual, all the pupils remain in the class the full hour; in this manner they learn as much by listening to their class-mates as when receiving instruction themselves. The greater knowledge of musical literature thus obtained is not to be underrated. For those who intend to adopt teaching as a vocation, it is most important to profit by the mistakes of others. The system of class instruction is in vogue in all European and in most of our Eastern conservatories.

I. Piano Forte—In this, as in all other departments, the instruction is adapted to the individual needs of each pupil.

The course is divided into three grades, *Elementary*, *Intermediate* and *Advanced*.

In the *Elementary* grade the student is taught to read music, to play scales and arpeggios, studies by Koehler, Heller, and the first books of Czerny's School of Velocity, sonatinas by Clementi and Dussek, and sonatas by Haydn and Mozart.

In the *Intermediate* grades the pupil is expected to master all the scales in double-thirds and double-sixths, Bach's Two-Part Inventions, and the French Suites, Etudes of Cramer, Clementi's Gradus ad Parnassum, Moscheles, op. 70, the earlier sonatas of Beethoven, selections from Mendelssohn and Schumann, and the less difficult works of modern composers.

The *Advanced* grade will study Bach's Well-Tempered Claviclord and the English Suites, Kullak's Octave-School, Tausig's Daily Studies, Etudes of Chopin, Schumann, Henselt, Rubinstein and Liszt, the piano concertos of Beethoven, Schumann, Chopin, Liszt, Grieg, Brahms and Tschaikowsky, as well as those works that constitute the repertory of the modern pianist.

Attention is also devoted in this course to sight-reading, accompaniment and ensemble-playing.

II. VOICE CULTURE AND SINGING.—Especial attention is given in this course to a correct management of the breath, the posing and preservation of the voice, artistic phrasing, and the development of a refined musical taste.

This course is divided into four grades: *Elementary*, *Intermediate*, *Junior*, and *Advanced*, and will cover the following work:

Elementary—Lessons in breathing; attack; simple tones; short intervals; slow trills; Behnke and Pearce's Exercises; easy songs.

Intermediate—Intervals; portamento; arpeggios; short scales; messa di voce; phrasing; Nava Book I.; Concone or Sieber exercises; songs and sacred music.

Junior—Development of voice; scales; phrasing; Nava Book II.; Concone or Luetgen exercises; Italian and German songs; and oratorio.

Advanced—Scales; embellishments; further development of voice: Marchesi and Luetgen exercises; oratorio and opera; extended study of songs.

III. ORGAN.—It is required of pupils admitted to this course that they shall have first studied the piano for at least one year.

The *Elementary* grade is devoted to exercises in pedal playing, first studies in pedal obligato, hymn-tune playing, and elementary registration.

The *Middle* grade embraces an extended study of registration through the medium of pieces especially adapted for use as preludes and postludes in church service, including studies and pieces of the polyphonic type as represented by Bach and Rink, and the practice of quartette and chorus accompaniment.

The *Advanced* grade is devoted to the study of organ solo, including Bach's Preludes and Fugues, works in sonata form by Mendelssohn and others, modern works in free form, and lessons in improvisation and transposition.

IV. HARMONY.—This course includes the study of the various chords, their structure, relations and progressions, the working out of figured basses, the harmonization of choral-melodies, and modulation. All the principles are taken down by the students from demonstration in the class-room. Richter's Harmony is used as a work of reference.

Harmony has been placed on the list of elective studies in the regular College courses.

V. COUNTERPOINT.—This subject can be taken only by those who have satisfactorily completed the study of Harmony.

Simple and double Counterpoint for two, three and four voices, imitations, canons, three and four part vocal and instrumental fugues. No text book is used.

VI. COMPOSITION.—This subject is divided into two courses of one year each. A thorough knowledge of Harmony and Counterpoint is necessary for admission.

Part I. The construction of phrases and periods; the simpler instrumental forms; the scherzo, rondo, adagio, variations, and the sonata-form. The student does practical work in all these departments of Composition; the work is criticized in detail in the class-room. Especial attention is devoted to the analysis of the classic master works.

Part II. Instrumentation; the nature and characteristics of all the orchestral instruments, and their application in symphonic writing; the larger vocal and instrumental forms; the string quartette and various branches of chamber music; continuation of analysis and reading from score.

FREE ADVANTAGES.

Choral Society.—All the students of the Conservatory are admitted free of expense to the Colorado Springs Choral Society, which meets once a week under the leadership of the Director of the Conservatory. A highly successful concert was given by the Society in February, and preparations for a second one are now in progress. The enthusiasm with which the students have entered into this work is one indication of the great development of the musical spirit in the College and the Academy during the past year.

Sight-Reading Class.—A class in solfeggio and singing at sight is organized at the beginning of each year, and is free to all students of the Conservatory.

Special Lectures and Concerts.—All lectures and concerts given under the auspices of the Conservatory are free to students of music. The following lectures were given during the past winter by Mr. Rubin Goldmark:

I. Richard Wagner; his Life, his Works and his Theories.
2. The Nibelung Tetralogy—Rhinegold.
3. The Nibelung Tetralogy—The Valkyrie.
4. The Nibelung Tetralogy—Siegfried.
5. The Nibelung Tetralogy—The Dusk of the Gods.
6. The National Element in Music.

It is the intention of the Faculty to make such lectures a feature of the department, thus stimulating a general interest in music by bringing various musical topics under discussion.

SPECIAL FEATURES.

The healthful surroundings and unexcelled climate of Colorado Springs, the quiet and seclusion that can so easily be obtained when desirable, are especial advantages to the music student. In many cases the study of music is a severe tax on the strength of the conscientious pupil. Here he can pursue musical and other studies, while at the same time gaining health and strength.

The moral and religious influences of the city and the College are elements that should enter into the life of every student.

The student has access to the courses in Physical Culture in the College, free of cost.

The College Library of upwards of 15,000 volumes is open to students of music on the same terms as to students of all other departments—three dollars a year.

EXPENSES—TUITION.

Per term, payable in advance; two lessons a week.

CLASS LESSONS, ONE HOUR LONG.

Pianoforte, violin, voice, organ, each	$25 00
Harmony	12 00
Counterpoint	18 00
Composition	22 50

PRIVATE HALF-HOUR LESSONS.

Pianoforte, violin, voice, organ, each	$35 00

ROOMS AND BOARD.

Montgomery Hall and Hagerman Hall, the homes of College and Academy students, will be open to students of music at the same rates as to others.

Montgomery Hall (for young women), including board and room, light and heat, per week, $6.

Hagerman Hall (for young men), including board and room, with light and heat, prices varying according to room, per week, $5 to $6.

Towels, bed-linen and blankets must be furnished by students.

A students' club has been organized where young men can board at about $2.50 a week. Such students can room at Hagerman Hall for from $1 to $2 a week.

OTHER EXPENSES.

One study, Colorado College or Cutler Academy, per term	$10 00
Two or more studies	17 50
Library Fee (if Library is used), per year	3 00
Rent of Piano, one hour each day, per term	3 00
Rent of Piano, two hours each day, per term	5 00
Rent of Piano, each additional hour, per term	2 00
Rent of two-manual organ, one hour each day, per term	10 00

Students will be accepted only on payment of a full term's tuition. No deduction will be made for absence from lessons, except on account of prolonged illness.

The following is an estimate of expenses for one year, the student taking Harmony and either piano, voice, or organ, in classes, but paying the highest price for board and room :

Harmony, and either piano, voice or organ, in classes	$ 74 00
Board and room at $6 per week	192 00
Washing, etc	20 00
One study, Colorado College or Cutler Academy	10 00
Library Fee	3 00
Rent of piano (two hours a day; if organ, more).	10 00
Total	$309 00

DEPARTMENT OF FINE ART.

The relation of this department to the general work of Colorado College is in the main similar to that of the department of Music, which was organized at the same time. It is under the charge of a Director.

It is the object of this department to give a thorough course in Drawing and Painting, from the simplest geometrical forms to the higher branches of Figure and Landscape Painting, and also to give a general idea of what has been done in Art from the time of the Old Masters to the present day.

COURSES OF STUDY.

FIRST YEAR.

Geometrical drawings,—drawing in charcoal from geometrical solids, in outline and in light and shade. Drawing from cast,—fruit and ornament. Outdoor work in black and white,—pencil and charcoal. Reading: Modern Painters.

SECOND YEAR.

Drawing in charcoal from cast of heads and torse. Drawing from Still Life in pen and ink. Conventionalizing of plant forms for designs. Outdoor work in black and white,—pen and ink, pencil and charcoal. Reading: Modern Painters and Schools.

THIRD YEAR.

Drawing from model,—heads. Painting from Still Life in water color and oils. Applied Designs,—book covers, posters, wall paper, etc. Reading: the Old Masters.

FOURTH YEAR.

Painting from still life in water color and oils. Painting from draped model in water color and oils. Out door work in pen and ink, water color and oils. Reading: Schools of Art from the Old Masters to the present day.

LECTURES.

First Year.—Historical Ornament and Applied Perspective.

Second Year.—Composition and Applied Design.

Third Year.—Technique.

Fourth Year.—Color.

In the first year of the above course of study, one lesson a week is open to students of the Academy (see pages 60 and 62, second year of the Latin-Scientific and Scientific Courses), without any charge beyond the ordinary Academy tuition fee.

Further information in regard to fees, or other matters pertaining to the Department, may be had of the President of the College, or of the Director, Mrs. S. B. de Peralta.

CIRCULAR OF INFORMATION.

LOCATION.

The City of Colorado Springs is admirably adapted for a college town. At its very foundation plans were wisely laid, and the succeeding growth has maintained a most healthy character of morality and culture, to which has been added the element of wealth, increasing since the construction of radiating railroad systems, at a brisk, though not abnormal, rate. The result is a prosperous, wide-awake town, from which saloons and the attendant destructive influences are absent, having a population drawn from every section of the Union, as well as from England, and, in a slight degree, from other countries, but, whether native or foreign, composed almost wholly of the better class of settlers; a town at present of somewhat more than fifteen thousand inhabitants, but with all the conveniences of a larger city—water works, sewers, electric lights, elecric street-railways, mail delivery, telephone connection, north, south and west. It is a noted health resort, but has none of the air of a hospital. But while it possesses the attractions of a city, the lover of nature may seek far for a spot more favored. The mountains are close at hand, and their serrated line occupies about one-third of the horizon. In the centre, and at an air-line distance of less than a dozen miles, stands that renowned mountain, Pike's Peak. Its summit is reached by a cog-railway, as well as by bridle paths and an excellent carriage road. About its base are numerous canons, and in one of these rise the celebrated mineral springs around which has grown the City of

Manitou. The climate of Colorado Springs has attained a world-wide reputation. Its curative qualities consist largely in the opportunity for outdoor exercise, afforded by the great number of fine days, to which the dryness and rarity of the air adds a quality exhilarating to all, and regarded as a specific in cases of malarial disease, asthma, and incipient phthisis. Students unable to work in other climates may here continue their studies, while at the same time making a permanent gain in health. This plan has been successfully carried out in numerous instances.

SPECIAL STUDENTS.

Special students will be received, at the discretion of the Faculty, into such classes as they are qualified to enter. It is the rule of the College that such students must attend the examinations as well as the ordinary recitations of their classes, subject to the same provisions as other students regarding excuse for necessary absence.

Several of the courses of lectures which form part of the College instruction, particularly in the department of Philosophy, are open to the public on payment of a small fee, and, of course, without any requirement of examination.

LIBRARY.

A new and beautiful Library building, the gift of N. P. Coburn of Newton, Massachusetts, stands upon the southwest corner of the College Reservation. It was erected at a cost of $50,000, and was dedicated in March, 1894, on which occasion President Wm. R. Harper, of the University of Chicago, made the principal address.

The building is of rare architectural beauty,—substantial, commodious and admirably fitted for its purpose. It is built of the "Peach Blow" sandstone of Colorado, and roofed with red tile and copper mountings. The interior, with its ceiling twenty-six feet high, its red oak woodwork, its picturesque galleries, its inviting alcoves, its great stone fireplaces, is exceedingly attractive. Long arched windows, commanding views of the mountains and plains on either side, extend from floor to ceiling. A full sized cast of the "Winged Victory" of Samothrace stands at one end of the main hall. It was given, in memory of the Rev. Daniel P. Noyes and Helen McGregor Noyes, his wife, by their three children, two of whom are members of the College Faculty, and the third is Mr. Edward P. Noyes, of Boston. In one of the recesses is a fine marble bust of Antinous, presented by Mrs. Ballou. A large case containing Mr. Dickerman's collection of rare and valuable Indian curiosities adds to the interest of the room.

The well-lighted basement, designed to serve ultimately as a stack room, is at present furnished with pews of natural oak, and is used as the College Chapel.

The number of volumes on the Library shelves amounts to upwards of fifteen thousand, with more than two thousand pamphlets in addition. The leading literary and scientific journals are regularly received, as are also the government publications.

The Medical Alcove was originated two years ago by the generosity of the late Dr. B. F. D. Adams, of Colorado Springs, who presented to the College his extensive medical library. The El Paso Medical Society maintains the efficiency of this department by contributing the transactions of Medical Societies and other standard works purchased out of the funds of the Society for use of members. During the last year, moreover, the collection of works on medicine was much enriched by the gift of over four hundred volumes from Dr. E. C. Kimball, of Colorado Springs.

With the commencement of the year 1896, a new departure in the Library management was inaugurated. The control of the Library was vested in a Board of twenty-five members, composed partly of members of the Faculty and Board of Trustees, and partly of ladies and gentlemen not connected with the College. Simultaneously with the creation of this Board, the Library was opened as a circulating library to residents of Colorado Springs and vicinity. In the absence of anything like an adequate public or subscription library in the town, it was thought that the educational advantages afforded by access to the best books in literature, history and science, might be extended to all citizens of Colorado Springs, without detriment to the interests of the students and professors of the College. Access to the shelves is permitted, and all the privileges of the Library, including the use of all the current magazines and periodicals taken by the College, are open to the public on payment of the same small fee required of College students. The hours when the Library is open are from 8:30 A. M., until 6 P. M., and on Saturdays until 9 P. M.

Donations of books and pamphlets have this year been received from Hon. John Bigelow, Mrs. Caroline H. Dall, Dr. E. C. Kimball, Mr. Atherton Noyes, General Palmer, Mrs. N. W. Harris and C. E. Tracy.

READING ROOMS.

In connection with the Library is a Reading Room for the use of students and friends of the College, where the current magazines of literature and science, as well as a number of leading newspapers, may be consulted. The Young Men's Christian Association of the College has also a similar room in Hagerman Hall.

LABORATORIES AND APPARATUS.

The Laboratories of the College supply the means for thorough and practical training in the scientific branches of the curriculum.

A good telescope of four inches aperture, equatorially mounted on a tripod, was presented to the College in September, 1892, by Henry R. Wolcott, Esq., of Denver.

Six new compound microscopes and a fine sledge microtome are recent additions to the Laboratory of Biology.

A fine stereopticon, operated with the calcium light, may be used by all departments of the College, in presenting those topics which are suitable for pictorial illustration. About six hundred selected photographic views, covering many subjects, are now in the possession of the College.

MUSEUM.

The condition of the Museum has recently been much improved by the increased space rendered available through the transfer of chapel and other public exercises to the Coburn Library, by the enlarged facilities for display of collections in new exhibition cases, and by various donations and loan collections that have been received.

The College makes grateful acknowledgment of the following

DONATIONS.

From Messrs. R. R. and R. W. Goodell:—A collection of marine invertebrates from the Gulf of California, at Guaymas, Mexico, including fan-corals, sea-urchins, star-fishes, feather-stars, sea-cucumbers, molluscan shells, etc. This is much the largest gift that has been made to the museum during the year. It includes nearly a thousand specimens and represents the expenditure of several hundred dollars on the part of its generous donors. It is a valuable addition to the permanent equipment of the College for zoological study.

From Mr. M. J. Kohlberg:—A fine mounted specimen of the porcupine fish; presented by Mr. Kohlberg through the kind offices of Mr. R. W. Goodell.

From Mr. G. W. Hammond:—Specimens of tourmaline. lepidolite, and other minerals from the famous Mount Mica mines at Paris, Maine.

From Dr. W. F. Slocum:—Specimens of geyserite, obsidian, smoky topaz, celestite, beryl, etc., from the Yellowstone National Park; red sandstone from Utah, etc.

From Mr. H. W. Emrich:—Specimens of Baculites from upper Cretaceous rocks near Pueblo.

From Mr. W. L. Wilder:—A line of igneous rocks from Shingle Peak and vicinity, Garfield county, Colorado, including lava with flow-structure, vesicular and scoriaceous lava, volcanic tufa, and volcanic bombs; among the latter, one especially large and fine example with scoriaceous core.

The College still has the use of the following

LOAN COLLECTIONS.

Deposited by Mr. A. L. Dickerman:—(1) A large collection of wearing apparel, ornaments, weapons, implements, etc., of various tribes of North American Indians; (2) a collection illustrating Alaskan Indian handiwork. Both of these collections contain many rare and unique specimens.

Deposited by Mr. Lazard Cahn:—A valuable collection of minerals. The collection is choice throughout, and is especially rich in rare minerals and in crystallographic forms. It is of especial value for reference by students, being carefully labelled in accordance with the latest revision of the system of Dana.

Deposited by Mr. J. Devin:—(1) A collection of minerals; (2) one of Japanese art; also (3) some miscellaneous specimens. The first of these collections, besides including some fine minerals, is especially rich in agates, and includes a fine suite of specimens from the famous petrified forest, "Chalcedony Park," on Lithodendron creek, near Holbrook, Arizona. The Japanese collection contains some very valuable articles.

Deposited by Prof. F. W. Cragin:—A paleontological collection valued at several thousand dollars and including remains of Quaternary camels and horses, Tertiary American rhinoceroses and mastodons, Cretaceous saurians, Tertiary fishes, and a large series of shells, echinoderms, and other invertebrates from the lower Cretaceous of Texas, besides many other interesting specimens. This collection is of especial scientific importance, not only as supplying a large part of the geological record hitherto not represented in the museum, but also as being the elaborated result of years of research and as containing the *types* of many new species and some new genera of fossils, both invertebrate and vertebrate. Among these type-fossils, the most important is the large plesiosaurian reptile. *Trinacromerum*, the type of a new genus and species discovered in the Cretaceous rocks of Kansas, described by Professor Cragin in the *American Geologist*, in 1888, and now of frequent mention in the paleontological literature of both hemispheres.

The rapid growth of the collections emphasizes the increasing necessity for a building in which to properly utilize them. The present Museum is already full, and besides separate and commodious museum rooms for zoology, geology, ethnology and archaeology, a number of smaller rooms are needed for laboratory work in geology, paleontology, mineralogy, lithology, zoology, physiology and botany. A building for these and other scientific purposes is vital to the development of the work of the institution.

CASES.

Within the last two years there have been placed in the Coburn Library one, and in the museum in Palmer Hall twenty-three new exhibition cases. The first, a large wall case, was built in the Coburn Library for the display of the Dickerman collection. Of the twenty-two flat show-cases, twelve were purchased by the College to accommodate a part of the College collections in zoology and paleontology and certain loan collections. Two of these were assigned to the Cahn collection of minerals, one to the Devin collection of minerals, one to the

Devin Japanese collection, and two to the College conchological collections, the remaining six containing the College collections in paleontology. The ten cases most recently added were purchased by Professor Cragin for the accommodation of his private collection in paleontology.

COLORADO COLLEGE SCIENTIFIC SOCIETY.

The Colorado College Scientific Society holds monthly meetings in the observatory. The objects of the Society are: "The discussion of recent scientific results, the promotion among its members of scientific inquiry and investigation, and the publication of the more important papers read at the meetings." It was organized in January, 1890, and has already done some excellent work. Six annual publications, entitled "Colorado College Studies," have been issued, and a considerable number of exchanges from associations of a like nature, including some foreign societies, have been secured. The attention which the "Studies" have received from scientific men everywhere, encourages the Society to continue this publication. The list of articles hitherto published is as follows:

VOLUME FIRST—

A Rigorous Elementary Proof of the Binomial Theorem.—*F. H. Loud.*

On Certain Cubic Curves.—*F. H. Loud.*

A Study of the Inductive Theories of Bacon, Whewell and Mill. —*Benj. Ives Gilman.*

A Mathematical Text-Book of the Last Century.—*F Cajori.*

Horace, Od. III, 1, 34.—*George L. Hendrickson.*

Quinti Ciceronis Commentariolum Petitionis XI, §43, (B. et K. vol. IX, p. 487).—*George L. Hendrickson.*

VOLUME SECOND—

Witchcraft Among the Hindus.—*Dr. H. W. Magoun.*

Protection for Congressional Minorities,—*W. M. Hall.*

Pulsations in the Aortic Arches of the Earthworm.—*Miss M. R. Mann.*

Dialectic Studies in West Virginia.—*Dr. Sylvester Primer.*

The Study of Diophantine Analysis in the United States.—*F. Cajori.*

The Elliptical Functions Defined Independently of the Calculus. *F. H. Loud.*

On Two Passages in the Crito.—*Dr. H. W. Magoun.*

Calibration of Burettes.—*D. J. Carnegie.*

On a Passage in the Frogs.—*Dr. H. W. Magoun.*

Note on the Hadley-Allen Grammar.—*Dr. H. W. Magoun.*

Historical Note on the Differentiation of a Logarithm.—*F. Cajori.*

A Mathematical Error in the Century Dictionary.—*F. Cajori.*

VOLUME THIRD—

The Etymologies in the Servian Commentary to Vergil.—*Dr. W. P. Mustard.*

Notes on Jefferson's Draft of the Ordinance of 1784·—*W. M. Hall.*

Some Notes on Blaydes' Nubes.—*Dr. A. T. Murray.*

On a Passage in Euripides' Iphigenia Taurica.—*Dr. A. T. Murray.*

Draper's Barograph.—*Florian Cajori.*

The Conditional in German.—*Dr. S. Primer.*

VOLUME FOURTH—

The Circular Locus.—*F. H. Loud.*

On the Eight Lines Usually Prefixed to Horat. Serm. I. 10.—*Dr. W. P. Mustard.*

State Bank Notes.—*W. M. Hall.*

VOLUME FIFTH.—

The Ethical Problem of the Public School System.—*W. F. Slocum, Jr.*

The Origin and Use of the Natural Gas at Manitou, Colorado.—*Wm. Strieby.*

Vertebrata from the Neocomian of Kansas.—*F. W. Cragin.*

The Choctaw and Grayson Terranes of the Arietina.—*F. W. Cragin.*

Descriptions of Invertebrate Fossils from the Comanche Series of Texas, Indian Territory and Kansas.—*F. W. Cragin.*

Herpetological Notes from Kansas and Texas.—*F. W. Cragin.*

Volume Sixth.—

The Permian System in Kansas.—*F. W. Cragin.*

On the Stratigraphy of the Platte Series, or Upper Cretaceous of the Plains.—*F: W. Cragin.*

Preliminary Notice of Three Late Neocene Terranes of Kansas. —*F. W. Cragin.*

Students are encouraged to attend the meetings of the Society.

The Secretary of the Society, to whom all correspondence, exchanges, etc., should be addressed, is Professor Florian Cajori.

UNIVERSITY EXTENSION LECTURES.

University Extension work at Colorado College was inaugurated in March, 1894, by the organization of classes in special subjects for the benefit of those not wishing to undertake regular college work.

Extended courses were given in Geology by the late Professor Surls, and in the Duties and Privileges of Citizenship by the late Professor Hall; while Popular Lectures on philosophical and scientific subjects were delivered by President Slocum and by Professors Cajori, Cragin and Strieby.

During the succeeding College year, October to December, 1894, the following courses were delivered:

A Study of Four Religions.- *President Slocum.*
Early English Life and Literature.—*Professor E. S. Parsons.*
An Introductory Course in Psychology.—*Miss Noyes.*
Talks on Astronomical Subjects with Illustrations by the Telescope.—*Professor F. H. Loud.*

The movement, at first considered by the Faculty of the College in the light of an experiment, has met with so pronounced a degree of success, that it has been continued; and during the past year the audiences have been much increased in numbers.

By the courtesy of the School Board, and with the hearty co-operation of Superintendent Pattison and Professor Turnbull, most of the lectures have this year been delivered in the High School Building. They were opened by Professor Parsons's course in Early English Life and Literature, repeated by request. The entire series of this year has been as follows:

Nov 18—The Original Inhabitants of Great Britain and their First Conquerors.....................Professor E. S. Parsons

Nov. 25 The Second Conquerors—the Angles and the Saxons, Professor Parsons

Dec. 2 Literature Before the Introduction of Christianity, Professor Parsons

Dec. 9—The Christian Conquest and its Influence on Anglo-Saxon Poetry..............................Professor Parsons

Dec. 16—Monuments of Christian Prose ....Professor Parsons

Jan. 13—The Faust Legend...........Professor L. A. E. Ahlers

Jan. 20—Goethe's Faust, Part I ....Professor Ahlers

Jan. 27—Goethe's Faust, Part II...............Professor Ahlers

Feb. 3—Ventilation through Chimneys and Fire Places, Professor Wm Strieby

Feb. 10—Dust ....Professor Florian Cajori

Feb. 17—Below Zero ....Professor Cajori

Feb. 24—Dante........................Professor H. H. Langton

Mar. 2—Benvenuto Cellini....................Professor Langton

Mar. 9—Greek Views of Death........Professor G. A. H. Fraser

Mar. 16—Roman Views of Death................Professor Fraser

Mar. 23—Compulsory Insurance in the German Empire Professor Francis Walker

Mar. 30—The Single Tax ....Professor Walker

April 13—Modern French Novelists .... Professor Ahlers

COLLEGE RESIDENCES.

There are two substantial stone buildings on the College grounds, planned with reference to the needs of students. They are warmed by steam, lighted by electricity, and have every desirable convenience.

At Hagerman Hall, which provides for young men, is a dining room that may accommodate one hundred and fifty students. Those who room out of the building can secure meals here at low rates.

Montgomery Hall, given by the Woman's Educational Society of Colorado Springs, provides a thoroughly comfortable and attractive home for twenty-six young women. Board and room may be obtained at low prices.

During the present year a comfortable dwelling, in the rear of Hagerman Hall, has been used as a students' Club house. It is in charge of a Matron, and furnishes to students desirous of economizing, an opportunity to regulate their own expenses for board and reduce them to a minimum.

STUDENTS' SOCIETIES.

Associations, of both young men and young women, have been organized in the College, in affiliation with the College Christian Associations of the country, and are useful in promoting the fellowship of students in ways that harmonize with Christian aspiration and effort. A Reading Room is supported by the young men's association; the nucleus of a missionary library, amounting at present to about thirty volumes, has been collected; lectures are given from time to time by various speakers; religious meetings are held weekly, and missionary work, both at home and abroad, is actively pursued.

The three literary societies of the College furnish opportunity for independent work and drill in public debate and parliamentary practice. During two years past they have occupied and handsomely furnished a Society Hall, devoted to their exclusive use.

ALUMNI ASSOCIATION.

The Alumni Association of Colorado College is becoming one of the important features of the College and college life.

Its membership consists of those students who have attended the College long enough to have an interest in its welfare, and who desire to keep up the acquaintance of graduates and others who have attended the College.

The Association holds its meetings every year during Commencement Week, generally having a banquet to follow the business meeting. At this meeting questions of interest to the College and the Association are discussed.

At the meeting held in June, 1895, it seemed desirable for the Association to have something definite to do, so it was voted to make the first effort in establishing a Scholarship Fund.

CONTESTS IN PUBLIC SPEAKING.

An Oratorical Contest is held each year, as mentioned on a former page, and is open to all members of the College. The winner represents the College at the State Intercollegiate Oratorical Contest.

A Prize Declamation Contest is held at the close of each Academic year and is open to members of the Freshman Class. The prize last year was awarded to Miss Mabel Spicer.

EXPENSES.

Tuition, per year	$35 00
Matriculation fee	5 00
Library fee	3 00
Table board, in Hagerman Hall, per week	4 00
Rooms, warmed and furnished, per week, from $1 to	2 00
(*Towels, bed linen and blankets must be provided by the students.*)	
Expenses at Montgomery Hall, including light and heat, per week	6 00
Table board at College Club, per week, about	2 50

COLLEGE BILLS.

The term bills are issued at the beginning of each half-year, and are payable immediately, unless special arrangements are made with the President.

Students who leave before the end of the term pay full tuition, except under very unusual circumstances.

PECUNIARY ASSISTANCE.

SCHOLARSHIPS.

The income of the following scholarships is devoted to the aid of worthy students who may need assistance in completing their course.

The Thomas Davee Scholarship of $500, established by the late Mrs. T. V. D. Mitchell, of West Minot, Maine.

The Rice Scholarship of $700, established by friends of the Rev. Chas. B. Rice, of Danvers, Mass.

The Currier Scholarship of $1,000, founded by the late Hon. Warren Currier, of St. Louis, Mo.

The Edwards Scholarship of $500, given by the Congregational Church, of Wellesley Hills, Mass.

The Mary Caroline Quincy Scholarship of $500, given by Mr. George Henry Quincy, of Boston, Mass.

The Lawrence Myers Scholarship of $1,000, and the Lucy Platt Myers Scholarship of $1,000, given by Mrs. Laetitia M. Myers, of Plainfield, New Jersey.

A Scholarship of $1,000, given by Mr. William F. Richards, through the Woman's Educational Society of Colorado College.

Several other scholarships are supported by annual subscription.

SELF-SUPPORT

Good scholars have opportunities for private teaching, and any young man can find work in town. Some students have paid all their expenses by current earnings.

THE WOMAN'S EDUCATIONAL SOCIETY OF COLORADO COLLEGE.

This Society was formed in April, 1889, by the women of Colorado Springs. Its purpose, as expressed in its constitution, is "to give physical, intellectual and spiritual aid to students in any department of Colorado College." This Society built Montgomery Hall and has been of service in many ways to the College.

The members of the Society endeavor to come into personal relations with the students, especially with those who are self-supporting; they try to find work for them, and by friendly advice assist them in their efforts to secure an education.

The membership fees of the Society go to form a beneficiary fund from which loans are made on the following conditions:

First.—Loans may be made to students who have been in the College for one term, and are recommended by the Faculty as in every way deserving of such aid.

Second.—No student shall be allowed to incur an indebtedness to the Society of more than $300.

Third.—Students may receive loans without interest until their connection with the College ceases; after that time their notes shall draw interest at four per cent.

The officers of the Society for the current year are:

President—Mrs. William F. Slocum.

Secretary—Mrs. Edward W. Bacon.

Treasurer—Mrs. Florian Cajori.

TRANSFER OF TILLOTSON ACADEMY.

The Trustees of Colorado College and Cutler Academy take this opportunity of announcing that arrangements have been completed by which, at the close of the present year, Tillotson Academy, at present located at Trinidad, Colorado, will be consolidated with Cutler Academy, all the properties being transferred to the latter institution.

Tillotson Academy was founded sixteen years ago by the New West Education Commission, and named for one of the most interested friends of Christian education in the West. For these sixteen years, under the inspiring leadership of Professor Henry E. Gordon, it has done a work equalled by no other of the Academies founded by the Commission. It has occupied a commanding position in the school work of southern Colorado. It has stood with an aggressive, unswerving loyalty to the purpose for which it was founded,—to secure, as the fruit of all its educational work, Christian character. At the time the Academy was founded, there was no High School in the region, and the need was very great. Now an excellent High School is supplying effectively the local demand, and the work outside the city can be done with greater advantage by Cutler Academy, with its more central location and its larger Faculty and superior equipment.

The transfer of Tillotson Academy to Colorado Springs will include the erection of a dormitory, to be used in connection with Cutler Academy, and to be known as Tillotson Hall. It is hoped that the friends of Mr. Tillotson and of the old Academy will generously provide this building in the near future.

It is also announced that Professor Gordon will follow the institution to Colorado Springs, and at the opening of the fall term enter upon the duties of the professorship of Rhetoric and Oratory, a newly created position, of which he will be the first incumbent. He will also assist largely in the work of Cutler Academy. The work he has done so successfully in Trinidad will thus not cease, but will be carried on with excellent prospect of still greater success in his new field.

THE NEEDS OF THE COLLEGE.

INCREASED ENDOWMENT FUNDS.

The special importance of additional endowments at the present juncture, and the conditional offer of Dr. D. K. Pearsons, have already been mentioned. To secure this fund by next July is at present the most urgent necessity of the College.

A SCIENCE BUILDING.

The present accommodations afforded the Departments of Chemistry, Physics, Biology and Geology are painfully inadequate. The laboratories are crowded so that the work now done is accomplished under difficulty, while much desired extensions are prevented. The need of increased space for collections has elsewhere been noticed. A large hall for all purposes of natural science is an imperative necessity.

A MUSIC AND ART BUILDING.

Rooms for practice and instruction in music, a large studio for the classes in drawing and painting, and an assembly room to be used for concerts and lectures are an immediate necessity. The instruction in music is at present given under great difficulties, so far as arrangements for rooms are concerned, and in order to meet the demands of the current year in the Art Department, an arrangement has been made which not only must be temporary, but which is already inadequate. Enlarged accommodations are imperatively needed.

RESIDENCE HALLS.

The halls have had no vacant rooms this year. New buildings for this purpose will be greatly needed in the fall of '96.

FUNDS FOR THE LIBRARY.

The permanent fund for purchasing books is too small, and both the regular work of the College and the value of the library to the town is seriously hampered by this limitation. The College appeals earnestly to lovers of books for money to be used for this purpose, either to be added to the permanent fund or to be immediately expended for the more pressing demands of the present moment.

SPECIAL FUNDS FOR SCIENTIFIC RESEARCH.

Money to be devoted to scientific work in special lines is very greatly needed. The opportunities of Colorado College in this direction are unusual because of the geographical, meteorological and geological situation. The attention of men interested in the advancement of science is earnestly called to the above statement.

SCHOLARSHIPS.

The trustees desire to emphasize the fact that many young people in a new country are obliged to earn their education by hard and self-denying work. Colorado College needs a large addition to her scholarship funds. Money thus applied tends directly to the profit of the individual and the country.

ASTRONOMICAL INSTRUMENTS.

The observatory needs a transit-instrument, an astronomical clock, star-charts, and several small pieces of apparatus for use in conjunction with the principal telescope. A number of the latter might be mentioned, costing but a few dollars apiece, each of which would add materially to the usefulness of the glass.

FORMS OF BEQUEST.

Those who intend to devise property to Colorado College or to the Woman's Educational Society, are requested to employ the following Forms of Bequest:

"I hereby give, devise and bequeath unto The Colorado College, of Colorado Springs, Colorado, the sum of........ .. dollars."

"I hereby give, devise and bequeath unto the Woman's Educational Society of Colorado College, of Colorado Springs, Colorado, the sum of...........dollars.

If other than money is willed, the form should be varied to suit the kind of property which it is desired to bequeath.

TWENTY-THIRD

ANNUAL BULLETIN

OF

COLORADO COLLEGE

AND

CUTLER ACADEMY,

COLORADO SPRINGS,

COLORADO.

APRIL, 1897.

COLORADO SPRINGS, COLORADO:
THE OUT WEST PRINTING AND STATIONERY CO.
1897.

WOLCOTT OBSERVATORY.

CONTENTS.

PAGE.
Announcement, - 5
Trustees, Standing Committees, - 8
College Officers, - 9
Board of Control of the N. P. Coburn Library, - 9
Faculty, - 10
Standing Committees of Faculty, Class Officers, - 14
Calendar, - 15
Requirements for Admission, - 16
Entrance Examinations, - 21
Admission to Courses, - 22

COURSES OF STUDY—

Bachelor of Arts, - 22
Bachelor of Philosophy, - 25
Bachelor of Science, - 29

DEPARTMENTS OF INSTRUCTION—

Philosophy, - 32
Greek, - 34
Latin, - 35
English, - 37
Modern Languages—German, French, Spanish, - 38
Mathematics and Astronomy, - 40
Physics, - 42
Chemistry, - 43
Biology, - 46
Geology, - 48
Economics, - 49
Political Science, - 50
History, - 51
Bible Study, - 52
Expression and Oratory, - 53
Physical Training, - 53
Prizes and Honors, - 54
Schedule of Recitations, - 56

THE CUTLER ACADEMY—

Faculty, - 58
Statement, - 59
Requirements for Admission, - 60
Courses of Instruction, - 61
Appendix (Supplementary Readings in English, etc.), - 67

COLORADO COLLEGE CONSERVATORY OF MUSIC—

Faculty, - - - 68
Purpose and Scope, - - - 69
Relation to Colorado College, - - - 71
Courses of Study, - - - 71
Free Advantages, - - - 74
Special Features, - - - 74
Expenses—Tuition, Rooms, Board, etc., - - - 75

DEPARTMENT OF ART—

Courses of Study, - - - 76

CIRCULAR OF INFORMATION—

Location, - - - 77
College Buildings, - - - 78
Library, - - - 80
Reading Rooms, - - - 82
Laboratories and Apparatus, - - - 83
Museum, - - - 83
The Colorado College Scientific Society, - - - 87
University Extension Lectures, - - - 89
Religious Life, - - - 91
Alumni Association, - - - 94
Literary Societies and Oratorical Contests, - - - 95
Students' Publication, - - - 95
Special Students, - - - 95
Expenses, - - - 96
College Bills, - - - 96
Pecuniary Assistance, - - - 96
The Woman's Educational Society, - - - 97
The Needs of the College, - - - 98
Forms of Bequest, - - - 100

◆

ANNOUNCEMENT.

Colorado College is the oldest institution of higher education in the State. In 1874, while Colorado was yet a Territory, a College upon a broad Christian foundation was established in Colorado Springs. The authorized announcement for that year contains the following words:

"It is the purpose of the Trustees to build a College in which liberal studies may be pursued under positive Christian influences. . . . The College is under no ecclesiastical or political control. Members of different churches are on its Board of Trustees. . . . The Congregationalists undertake to build the College, not as a Congregational College, but as Colorado College. . . . The character which is most desired for this College is that of thorough scholarship and fervent piety, each assisting the other, and neither ever offered as a compensation for the defects of the other."

From the beginning, the Board of Trustees has been composed of leading professional and business men of Colorado, together with a few Eastern men of similar standing, and has ever been animated by the purpose avowed by the original Board.

A grant of land and a promise of $10,000 in money had been made in advance of the organization of the College, in 1873, by the Fountain Company, the founders of the city of Colorado Springs. The Rev. Jonathan Edwards was the first professor and executive officer. The first President, the Rev. James G. Dougherty, was elected in 1875, and was succeeded in the following year by the

Rev. E. P. Tenney. From 1885 to 1888 there was no President, but the work of teaching was carried on without interruption. At this time there was only one building on the campus, Palmer Hall, erected in 1880.

In the autumn of 1888, William Frederick Slocum was elected President. The faculty was at once enlarged, the courses reorganized, and Cutler Academy incorporated as an associated preparatory school, in which students have since been trained, not only for Colorado College, but for all the leading institutions of the United States. Within the two following years, a hundred thousand dollars was given toward endowment, entirely from within the State of Colorado. Hagerman Hall was built in 1889. In the same year the Woman's Educational Society was organized and began the work of building Montgomery Hall. In 1890 the Colorado College Scientific Society was founded, and the first installment of its annual publication, *Colorado College Studies*, issued.

Within the current decade, the growth of the College in numbers — a growth uninterrupted by the general financial depression — has been matched by an appropriate enlargement of equipment and activity. Among the marks of advance are the Gymnasium, built by the efforts of students, the costly Library building, given by the late N. P. Coburn, and the Observatory, the gift of Henry R. Wolcott of Denver. Growth in other directions is indicated by the establishment of a strong course leading to the degree of Bachelor of Science, by the University Extension work, by the addition of an Art Department and by the founding of the Conservatory of Music, which successfully maintains, without encroaching beyond its proper relation to the academical departments, an equally high educational standard. Still more recent forward movements have resulted in the consolidation of Tillotson Academy with Cutler Academy, and in the completion of the new endowment fund of two hundred thousand dollars, one-fourth of which was contributed by Dr. D. K. Pearsons of Chicago. While not without needs that are keenly felt, the College has won an assured position and permanence, and offers to its students educational facilities of the same grade as are found at Eastern institutions of the higher learning.

❧

TRUSTEES OF THE COLLEGE.

William F. Slocum, *President of the Board*.	Colorado Springs.
Edward Brinley Adams,	Cambridge, Mass.
George W. Bailey,	Denver.
William P. Bonbright,	Colorado Springs.
Rev. W. H. W. Boyle,	Colorado Springs.
John Campbell,	Denver.
Henry Cutler,	North Wilbraham, Mass.
Rev. James B. Gregg, D. D.,	Colorado Springs.
J. J. Hagerman,	Colorado Springs.
John R. Hanna,	Denver.
Thomas S. Hayden,	Denver.
Irving Howbert,	Colorado Springs.
William S. Jackson,	Colorado Springs.
Horace G. Lunt,	Colorado Springs.
F. L. Martin,	Colorado Springs.
William J. Palmer,	Colorado Springs.
George H. Parsons,	Colorado Springs.
Rev. Philip Washburn,	Colorado Springs.

STANDING COMMITTEES OF THE TRUSTEES.

EXECUTIVE.

J. J. Hagerman, *Chairman;* George H. Parsons, *Secretary;* James B. Gregg, William S. Jackson, William J. Palmer.

FINANCE.

William S. Jackson, *Chairman;* William P. Bonbright, J. J. Hagerman, Irving Howbert, William J. Palmer.

INSTRUCTION.

James B. Gregg, *Chairman;* W. H. W. Boyle, John Campbell, Horace G. Lunt, Philip Washburn.

GROUNDS AND BUILDINGS.

George H. Parsons, *Chairman;* Thomas S. Hayden, F. L. Martin, William J. Palmer, Philip Washburn.

(The President of the College is *ex officio* a member of all committees.)

COLLEGE OFFICERS.

William F. Slocum, *President*. George H. Parsons, *Secretary*.
J. H. Barlow, *Treasurer*.

BOARD OF CONTROL OF THE N. P. COBURN LIBRARY.

Chairman.—William F. Slocum, *President*.
Secretary.—Herman G. A. Brauer, *Librarian*.

Rev. W. H. W. Boyle.
Miss Ellen T. Brinley.
Prof. Florian Cajori.
Prof. Francis W. Cragin.
Mr. Thos. H. Edsall.
Mr. Louis R. Ehrich.
Prof. G. A. H. Fraser.
Mrs. E. C. Goddard.
Rev. Jas. B. Gregg, D. D.
Mrs. J. J. Hagerman.
Mr. C. W. Haines.
Judge H. G. Lunt.
Miss M. McG. Noyes.
Mr. T. C. Parrish.
Prof. E. S. Parsons.
Mr. Geo. H. Parsons.
Mr. A. C. Pearson.
Mr. J. G. Shields.
Mrs. W. F. Slocum.
Dr. S. E. Solly.
Prof. Francis Walker.
Rev. Philip Washburn.

FACULTY.

WILLIAM FREDERICK SLOCUM, B. D., LL. D.,

President and Professor of Philosophy.

A. B. (Amherst), '74; B. D. (Andover), '78; LL. D. (Amherst), '93; LL. D. (University of Nebraska), '94; Colorado College, '88.

LOUIS A. E. AHLERS, A. B.,

Professor of Modern Languages and Literature.

A. B. (Harvard), '94; University of Berlin, '93-'94; Harvard Graduate School, '94–'95; Colorado College, '95.

CLARENCE WILBER BOWERS,

Instructor in Piano-forte and Organ.

Graduate New England Conservatory of Music, Boston; Pupil of G. W. Chadwick and Ferruccio Busoni, '90–'92; Pupil of Alexandre Guilmant, Paris, '95–'96; Organist and Instructor of Music in Seminary and Academy, Andover, Mass., '91–'92; Professor of Instrumental Music and Harmony, Cornell College, Mt. Vernon, Iowa, '92–'95; Colorado College, '96.

HERMAN G. A. BRAUER, PH. B.,

Librarian.

Concordia Seminary, St. Louis, Mo., '93; Ph. B. (Colorado College), '96.

FLORIAN CAJORI, M. S., PH. D.,

Professor of Physics.

S. B. (University of Wisconsin), '83; M. S. (University of Wisconsin), '86; Ph. D. (Tulane University), '94; Johns Hopkins University, '84–'85; Assistant Professor of Mathematics, Tulane University, '85–'87; Professor of Applied Mathematics, Tulane University, '87–'88; United States Bureau of Education, '88–'89; Colorado College, '89.

NATHAN BROWN COY, A. B.,

Associate Professor of the Classical Languages and Literatures, and Principal of the Cutler Academy.

A. B. (Yale), '70; Instructor Fort Washington French Institute (on the Hudson), '70-'71; Instructor Hasbrouck Institute, Jersey City, '71–'73; Principal Preparatory Department, Hanover College, Ind., '73–'74; Classical Instructor, Betts Academy, Stamford, Ct., '74–'75; Professor of Latin, Phillips Academy, Andover, Mass., '75–'76; Department of Classics, Denver High School, '81–'86; State Superintendent of Public Instruction, Colorado, '91–'93; Colorado College, '97.

FRANCIS WHITTEMORE CRAGIN, S. B.,

Professor of Geology, Mineralogy and Paleontology.

Agassiz Laboratory, Newport, '81; S. B. (Harvard), '82; Professor of Natural History, Washburn College, '82-'91; State Geological Survey of Texas, '92-'93; Colorado College, '91.

P. E. DOUDNA, A. B.,

Instructor in Mathematics.

A. B. (University of Wisconsin), '94; Fellow in Applied Mathematics (University of Wisconsin), '94-'95; Colorado College, '96.

CHARLES DOPF,

Instructor in Violin.

Member of Damrosch Symphony Orchestra, N. Y., '89-'96; Colorado College, '96.

OMA FIELDS,

Instructor in Piano-forte.

New England Conservatory of Music (graduate), '89; Pupil of Leschetitzky, Vienna, '96; Colorado College, '94.

GEORGE A. H. FRASER, A. M.,

Professor of Latin.

A. B. (University of Toronto), '89; A. M. (University of Toronto), '90; Tutorial Fellow in Classics, University of Toronto, '89-'91; Professor of Latin and Greek Languages and Literature, College of Montana, '91-'93; Member of the Montana State Board of Higher Education, '93; Colorado College, '93.

M. CLEMENT GILE, A. M.,

Professor of Greek.

A. B. (Brown University), '83; A. M. (Brown University), '86; Instructor in Phillips Academy, Andover, Mass., '83-'92; Assistant Professor of Greek, University of Chicago, '92-'94; Colorado College, '92.

RUBIN GOLDMARK,

Director of the Conservatory of Music, and Instructor in Harmony, Counterpoint and Composition.

Conservatory of Music, Vienna, '89-'91; Pupil of Raphael Joseffy and Anton Dvorak, '91; Instructor National Conservatory of Music, New York, '91-'93; Colorado College, '95.

HENRY EVARTS GORDON, A. B.,

Professor of Oratory and Rhetoric, and Instructor in Spanish.

A. B. (Amherst), '79; Principal Tillotson Academy, Trinidad, Colo., '80-'96; Colorado College, '96.

DELPHINE HANNA, M. D.,

Instructor in Physical Training.

Graduate Sargent Normal School of Physical Training, '85; Instructor in Physiology, Oberlin College, '85–'97; M. D. (University of Michigan, '96; Colorado College (on leave of absence), '96.

FREDERIC HOWARD,

Instructor in Voice Culture.

Pupil of Stockhausen, Frankfort, Germany, '91–'93; Colorado College, '96.

MARY ALICE LAKE, M. D.,

Assistant Medical Adviser.

Lake Forest University, '74–'84; M. D. (University of Colorado), '95; Colorado College, '96.

MABEL RUTH LOOMIS, A. B.,

Secretary to the President.

A. B. (Vassar), '85; Instructor in English, Vassar, '86–'95; Colorado College, '96.

FRANK HERBERT LOUD, A. B.,

Professor of Mathematics and Astronomy.

A. B. (Amherst), '73; Walker Instructor in Mathematics, Amherst, '73–'76; Instructor in Geometry, Smith College, '79; Scholar in Mathematics, Clark University, '90–'91; Colorado College, '77.

THE REV. GEORGE NATHANIEL MARDEN,

Professor of History.

HANNAH L. TAYLOR MUIR, M. D.,

Instructor in Physiology and Hygiene, and Assistant Medical Adviser.

Woman's Medical School, Philadelphia, '88–'90; M. D. (University of Colorado), '93; Clinical Obstetrician, University of Colorado, '93–'95; Assistant County Physician, Arapahoe county, Colo., '93–'94; Post-Graduate School of Medicine and Polyclinic, New York, '95; Colorado College, '95.

ATHERTON NOYES, A. B.,

Instructor in English and Greek, and Dean of the Faculty.

A. B. (Yale), '85; Colorado College, '92.

MARION McGREGOR NOYES,

Instructor in Philosophy and Latin, and President's Assistant.

Radcliffe College (Harvard Annex), '79–'81; Instructor in Logic and Psychology, Wellesley College, '88–'91; Colorado College, '91.

EDWARD S. PARSONS, A. M., B. D.,

Professor of English.

A. B. (Amherst), '83; A. M. (Amherst), '86; B. D. (Yale), '87; Colorado College, '92.

SOPHIE BENDELARI De PERALTA,

Director of the Department of Fine Arts.

Cooper Institute, N. Y., (graduate), '80; Student under R. Swain Gifford, J. Alden Weir, and Douglas Volk, N. Y.; subsequently with Carolus Duran and Henner (Paris), and Morelli (Naples); Colorado College, '95.

WILLIAM STRIEBY, A. M., E. M.,

Professor of Chemistry and Metallurgy.

A. B. (University of the City of New York), '75; E. M. (Columbia University School of Mines), '78; A. M. (University of the City of New York), '79; Principal Santa Fé Academy, Santa Fé, N. M., '78–'80; Colorado College, '80.

FANNY AIKEN TUCKER,

Instructor in Voice Culture.

Hershey School of Musical Art, '84–'85; Special Student in Oratorio and Church Music with Mrs. Sara Hershey Eddy, Chicago, '86–'90; Colorado College, '94.

FRANCIS WALKER, S. B., A. M., Ph. D.,

Professor of Political and Social Science.

S. B. (Massachusetts Institute of Technology), '92; A. M. (Columbia University), '93; Ph. D. (Columbia University), '95; University Fellow in Economics, Columbia University, '92–'94; with Massachusetts Board to Investigate the Unemployed, '94–'95; Colorado College, '95.

GERALD BERTRAM WEBB, M. D., L. D. S.,

Instructor in Physiology.

University of London and Guy's Hospital, London, '90–'95; L. D. S. (Royal College of Surgeons, England), '93; M. D. (University of Denver), '96; Assistant Professor of Physiology, University of Denver, '96; Colorado College, '97.

LECTURERS BEFORE THE SENIOR AND JUNIOR CLASSES.

J. T. ESKRIDGE, M. D.,

States of Disturbed Consciousness.

LEONARD FREEMAN, M. D.,

Anatomy of the Brain: Microscopic Analysis of Nervous Tissue.

THE REV. JAMES B. GREGG, D. D.,

The Ethical Teaching of the Old Testament.

HOWELL T. PERSHING, M. D.,

Localization of Brain Functions; The Psychology of Speech; Physical Basis of the Higher Mental Faculties; Hysteria; Hypnotism.

Lady-in-charge at Montgomery Hall,
MRS. EDWARD WOOLSEY BACON.

Lady-in-Charge at Hagerman Hall,
MRS. HARRIET STORRS CULVER.

Lady-in-charge at Tillotson Hall,
MRS. HELEN V. FLEMING.

STANDING COMMITTEES OF THE FACULTY.

SCHOLARSHIPS.

The President, *Chairman;* Mrs. William F. Slocum, Miss M. McG. Noyes.

SCHEDULE AND PUBLICATIONS.

Prof. Loud, *Chairman;* Prof. Cajori, Mr. Doudna.

POST-GRADUATE DEGREES.

Prof. Walker, *Chairman;* Prof. Parsons, The President.

ATHLETICS.

Prof. Gordon, *Chairman;* Prof. Ahlers, The President.

MUSIC.

Mr. Goldmark, *Chairman;* Miss M. McG. Noyes, Prof. Parsons.

ART.

Mrs. S. B. de Peralta, *Chairman;* Mrs. William F. Slocum, Miss M. McG. Noyes.

ACCREDITED SCHOOLS.

The President, *Chairman;* Prof. Gile, Prof. Coy.

CLASS OFFICERS.

COLLEGE.

Seniors—The President.
Juniors—Prof. G. A. H. Fraser.
Sophomores—Prof. L. A. E. Ahlers.
Freshmen—Prof. E. S. Parsons.
Special Students—
Prof. Florian Cajori.

ACADEMY.

IV—Prof. M. C. Gile.
III—Prof. William Strieby.
II—Prof. H. E. Gordon.
I—Mr. P. E. Doudna.
Special Students—
Miss M. McG. Noyes.

CALENDAR.

1897.

April 14	Wednesday	Easter Recess begins at 1 P. M.
April 21	Wednesday	Easter Recess ends at 8:30 A. M.
May 31	Monday	Decoration Day.
June 8	Tuesday	Second Semi-Annual Examinations begin. First Entrance Examinations begin.
June 13	Sunday	Baccalaureate Sermon.
June 14	Monday	College Oratorical Contest.
June 15	Tuesday	Cutler Academy Graduation Exercises.
June 16	Wednesday	Commencement Exercises.
Sept. 14	Tuesday	Second Entrance Examinations begin.
Sept. 15	Wednesday	First Half-year begins at 8:30 A. M.
Nov. 25 Nov. 26	Thursday Friday	Thanksgiving Recess.
Dec. 21	Tuesday	Christmas Recess begins at 1 P. M.

1898.

Jan. 4	Tuesday	Christmas Recess ends at 8:30 A. M.
Jan. 27	Thursday	Day of Prayer for Colleges.
Jan. 31	Monday	First Semi-Annual Examinations begin.
Feb. 7	Monday	Second Half-year begins at 8:30 A. M.
Feb. 22	Tuesday	Washington's Birthday.
April 6	Wednesday	Easter Recess begins at 1 P. M.
April 13	Wednesday	Easter Recess ends at 8:30 A. M.
May 30	Monday	Decoration Day.
June 7	Tuesday	Second Semi-Annual Examinations begin. First Entrance Examinations begin.
June 12	Sunday	Baccalaureate Sermon.
June 13	Monday	College Oratorical Contest.
June 14	Tuesday	Cutler Academy Graduation Exercises.
June 15	Wednesday	Commencement Exercises.
Sept. 13	Tuesday	Second Entrance Examinations begin.

REQUIREMENTS FOR ADMISSION
TO THE
FRESHMAN CLASS.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF ARTS.

Admission by Examination.

1. IN GREEK.—(*a.*) A thorough knowledge of inflection, with the use of the accents, and the ordinary grammatical constructions. (*b.*) Four books of the Anabasis, or three books and Cooke's Selections from the Cyropædia. (*c.*) Three books of the Iliad, with prosody and dialectic forms. (*d.*) Translation at sight of average passages from Xenophon and Homer. (*e.*) The translation into Greek of a passage of connected discourse of moderate difficulty. (Collar and Daniell's Greek Prose Composition, or the first forty-four exercises in Allinson's, will indicate the nature of the work required.) (*f.*) Such a brief general view of Greek history as is contained in the revised edition of Pennell's, or Oman's, or Myers' History of Greece.

2. IN LATIN.—(*a.*) Grammar. Special stress will be laid upon an accurate and ready knowledge of grammatical forms. (*b.*) *Cæsar*: Gallic War, Bks. I-IV, or an equivalent. (*c.*) *Cicero*: Seven orations. (*d.*) *Vergil*: Æneid, Bks. I-VI. (*e.*) Translation at sight of easy passages of prose Latin. (*f.*) Prose Composition (Daniell). (*g.*) An outline knowledge of the history of the Roman Republic.

3. IN ENGLISH.—The candidate will be required to write a short essay, which will be judged from the standpoint of thought, spelling, punctuation, grammar and division into paragraphs, on one of several topics which will be announced at the time of the examination. In 1897 the

topics will be chosen from the following works: Shakespeare's As You Like It; Defoe's History of the Plague in London; Irving's Tales of a Traveller; Hawthorne's Twice-Told Tales; Longfellow's Evangeline; George Eliot's Silas Marner.

All these books are to be read carefully and intelligently. Minute knowledge of them will not be required, but the candidate will be expected to have clearly in mind their important parts. For the examinations in 1898 and 1899, the following books are prescribed:

For 1898.—Milton's Paradise Lost, Books I and II; Pope's Iliad, Books I, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; Southey's Life of Nelson; Carlyle's Essay on Burns; Lowell's Vision of Sir Launfal; Hawthorne's House of the Seven Gables.

For 1899.—Dryden's Palamon and Arcite; Pope's Iliad, Books I, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; De Quincey's Flight of a Tartar Tribe; Cooper's Last of the Mohicans; Lowell's Vision of Sir Launfal; Hawthorne's House of the Seven Gables.

In addition to the above, the candidate will be required to pass an examination upon the subject matter, form and other literary qualities of the following books: Shakespeare's Merchant of Venice; Burke's Speech on Conciliation with America; Scott's Marmion; Macaulay's Life of Samuel Johnson.

For the examinations in 1898 and 1899, the following are prescribed:

For 1898.—Shakespeare's Macbeth; Burke's Speech on Conciliation with America; De Quincey's Flight of a Tartar Tribe; Tennyson's Princess.

For 1899.—Shakespeare's Macbeth; Paradise Lost, Books I and II; Burke's Speech on Conciliation with America; Carlyle's Essay on Burns.

A mastery of the essentials both of English grammar and of elementary rhetoric will also be required of all candidates.

4. IN GERMAN OR FRENCH.—A good elementary knowledge of the language, such as is sufficient for reading easy prose at sight. For outline of courses German A and French A, see pp. 38 and 40 respectively.

5. IN MATHEMATICS.—(*a.*) Algebra, through simultaneous quadratic equations. (*b.*) Elementary Plane Geometry, or as much as is contained in the first five books of Beman and Smith's or Wentworth's Geometry.

While Solid Geometry is not required, the student who adds this to his preparatory mathematical course will gain an advantage, particularly if he propose to take the course in Surveying in Freshman year. See p. 41.

[Candidates from schools where Greek is not taught, who have completed the preparation for the Bachelor of Philosophy division of the Freshman class, but prefer to follow the course for the degree of Bachelor of Arts, will be allowed to do so by taking Greek through the whole four years; but they are advised, instead, to diminish the requisite amount of work by substituting in their preparation a second year of German or French, and, if possible, the Freshman Latin or Mathematics, or both, for subjects which are not required for admission to the Bachelor of Arts division. If the Freshman Latin and Mathematics are not attainable in preparation, additional years of German and French will be useful through being credited as Junior electives.]

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed the Classical preparatory course adopted by the

Colorado State Teachers' Association will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Arts.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF PHILOSOPHY.

Admission by Examination.

In Latin, English, German (or French), and Mathematics, the requirements and recommendations are the same as for the course leading to the degree of Bachelor of Arts. Candidates for admission to this course need not offer Greek, in place of which they will be examined in the following subjects:

1. IN PHYSICS.—Gage's Introduction to Physical Science, Carhart and Chute's Elements of Physics, or an equivalent.
2. IN CHEMISTRY.—Williams' Introduction to Chemical Science, or an equivalent.
3. IN BOTANY.—Gray's Lessons (revised edition), or Bergen's Elements of Botany.
4. IN PHYSIOLOGY.—Martin's Briefer Course, or an equivalent.
5. IN AMERICAN OR ENGLISH HISTORY.—An outline knowledge of leading facts.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed the Latin Scientific preparatory course adopted by the Colorado State Teachers' Association will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Philosophy.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

In Physics, Chemistry, Botany, Physiology, American or English History, and in English, the requirements are the same as for the course leading to the degree of Bachelor of Philosophy. The following are the additional requirements:

1. In Latin.—Four books of Cæsar's Gallic War, or an equivalent, with a thorough knowledge of grammar; Latin Composition, at least so much as is contained in the first part of Daniell's Prose Composition.

2. In German.—Joynes-Meissner's German Grammar, Exercises in Translating English into German, Storm's Immensee, Jensen's Braune Erica, Chamisso's Peter Schlemihl, Hauff's Karavane, Gerstaecker's Germelshausen, Heyne's Harzreise, Schiller's Tell, Lessing's Minna von Barnhelm, Goethe's Egmont and Freytag's Journalisten, or an equivalent of these.

3. In French.—A good elementary knowledge of the language, such as is sufficient for reading easy prose at sight. See the outline of course "French A," p. 40.

4. In Mathematics.—(*a.*) Algebra, including the elements of the Theory of Infinite Series (Binomial, Exponential and Logarithmic Series, with simple applications in computation), and so much of the Theory of Equations as to include Horner's Method of Solution. (*b.*) Geometry, Plane and Solid, as contained in Beman and Smith's Geometry, or in the first eight books of Wentworth. (*c.*) Trigonometry, Plane and Spherical. The principles involved in the solution of triangles must be comprehended, and a fair degree of readiness and accuracy in their use acquired.

Admission by Certificate.

Candidates who offer satisfactory evidence, on the certificate of accredited schools, of having completed a preparatory course, similar in character and *equivalent in extent* to the above requirements, will be admitted without condition into the Freshman class in the course leading to the degree of Bachelor of Science.

The following schools are on the accredited list; certificates of the satisfactory completion of any courses in the curriculum of these schools will be accepted.

Colorado Springs High School.
Denver: High School, Dist. No. 1.
  High School, Dist. No. 2.
  North Denver High School.
Pueblo: High School, Dist. No. 1.
  High School, Dist. No. 2.
Longmont High School.
Greeley High School.
Canon City High School.
Durango High School.
Aspen High School.
Fort Collins High School.
Grand Junction High School.
Trinidad High School.
Cheyenne High School.
Wolfe Hall, Denver.

ENTRANCE EXAMINATIONS.

Examinations for admission to the College will be held on Tuesday and Wednesday, June 8 and 9, 1897, and again on Tuesday, September 14, 1897. The hour of beginning is 9 A. M. No examination will be held between these dates, but delayed examinations may be held after the beginning of the Fall term, for the accommodation of students who, for good reason, have been unable to attend at the regular time.

For the accommodation of students residing at a distance, examinations will be held under the direction of authorized persons, at various points in and near the State, as need may require. The cities of Cheyenne, Wyo., Denver, Pueblo, Trinidad, Leadville, Montrose and Grand Junction, Colo., and Las Vegas, N. M., are points where such arrangements can readily be made, and others may be added, if necessary. But students who desire examinations at these or other points must notify the President at least three weeks in advance of the time of the regular examination.

ADMISSION TO COURSES.

Students will be received into advanced classes on examination in the studies of the preceding years. The Faculty may, at their discretion, receive certificates from other colleges as evidence that the student has satisfactorily pursued these or equivalent studies.

The attention of students who propose to enter the Junior or Senior class is called to the notice at the end of the Elective list (page 29), relative to early application for Electives. Students are expected to register and begin attending their courses at the first exercise of each half-year.

COURSES OF STUDY.

Three courses of study are offered in the College, each subject to considerable variation at the will of the student. The course leading to the degree of Bachelor of Arts corresponds to that which the best Eastern colleges require for the same degree. In the course leading to the degree of Bachelor of Philosophy there is no Greek, and less Latin than in the course for Bachelor of Arts; but the required work of the first two years includes more of Natural Science and Modern Languages. The course leading to the degree of Bachelor of Science is so arranged that special attention may be devoted to any one of five principal lines of study, which give prominence to Mathematics, Physics, Chemistry, Biology and Geology, respectively. A detailed description of these will be found below.

BACHELOR OF ARTS.

FRESHMAN YEAR.

Mathematics.—4 hours through the year. First half-year—Plane

Trigonometry. Solid Geometry. Second half-year Solid Geometry, Spherical Trigonometry and Algebra, (Series, Logarithms and Numerical Higher Equations).

After completing Plane Trigonometry in the first half-year, the student may substitute for Solid Geometry and Spherical Trigonometry a course in Elementary Surveying, (see p. 41).

German or French. 4 hours through the year; a second year (Course B, see pp. 38, 40) of whichever of these languages the student offered as part of his preparation for college.

English. 2 hours through the year: History of the English Language and Rhetoric (Courses 1 and 2, page 37).

Expression. 2 hours, first half-year. (Counts as one hour.)

Greek. 3 hours through the year. First half-year—Selections from the Odyssey or Iliad: reading at sight. Second half-year—Selections from Lysias; History of Greek Oratory; Selections from Herodotus; The Apology and Crito; reading at sight.

Latin.– 4 hours through the year. First half-year—Livy, Bk. xxii; Cicero, De Senectute; Latin composition; reading at sight. Second half-year—Tacitus, Dialogus de Oratoribus; Horace, Odes, Bks. i and ii; Latin composition; reading at sight.

SOPHOMORE YEAR.

Latin.—3 hours through the year. First half-year—Vergil, Georgics, Bk. ii: selected letters of Pliny; Latin composition; reading at sight. Second half-year—Horace, Epistles, Bk. i; Cicero, Tusculan Disputations i, ii; Latin composition; reading at sight.

English.—First half-year, 2 hours. Applied Rhetoric (Course 3, page 37). Second half-year, 3 hours—American Literature (Course 4, page 37).

Chemistry.—8 hours through the year; partly laboratory work and partly recitation. (Counts as 4 hours.)

Oratory.—2 hours, first half-year. (Counts as 1 hour.)

Greek.—First half-year, 4 hours—The Antigone of Sophocles; History of Greek Tragedy; Æschylus, Prometheus Bound. Second half-year, 4 hours—Euripides, Iphigenia Taurica; Demosthenes, De Corona; reading at sight. Alternative in each half-year with Mathematics.

Mathematics.—First half-year, 4 hours—Analytical Geometry, including the elementary properties of Conics. Second half-year, 3 hours—Analytical Geometry continued. Alternative in each half-year with Greek, but the second half-year of Analytical Geometry cannot be taken without the first. A student may take both Greek and Mathematics, and when this is done in the first half-year he will receive credit on his Junior electives for one hour for half a year. Such students will omit the following subjects.

French or German.—A third year in continuation of the student's previous work in one of these languages, 3 hours through the year; or, at the student's option, a beginning course (German A or French A) of the language not studied in Freshman year, 4 hours through the year, counting as 3 hours. In the second half-year alternative with Zoology.

Zoology.—Second half-year, 3 hours. Alternative with French and German.

JUNIOR YEAR.

Logic and Psychology.—4 hours through the year, including one seminary hour. First 14 weeks, Jevons' Lessons in Logic, with outside reading. Remainder of the year, James' Principles of Psychology; outside reading, lectures and experiments. In the seminary, theses and discussions.

Physics.—4 hours through the year. (Course A, page 42.)

Political Economy.—First half-year, 4 hours.

Elective Courses.—Amounting to at least 5 hours in the first half-year and 9 in the second, chosen by the student from the list given on pages 26–29.

History.—Among the electives of Junior or Senior year, the student is required to choose some course or courses in History, amounting to at least 4 hours for one half-year.

SENIOR YEAR.

History of Philosophy and Ethics.—4 hours through the year, including 1 seminary hour. First half-year—History of Philosophy; outside reading, lectures and conferences. Second half-year—Janet's Theory of Morals; outside reading, lectures and conferences. In the seminary of each course, theses and discussions.

English.—The writing of two orations.

Elective Courses.—Amounting to at least 13 hours for the first half-year and 12 hours for the second half-year; chosen by the student from the list on pages 26–29.

BACHELOR OF PHILOSOPHY.

FRESHMAN YEAR.

Mathematics, German or French, English, Expression.—The course is the same as that for the degree of Bachelor of Arts.

Latin.—As in the Bachelor of Arts course. Alternative with the French and German named below.

French or German.—4 hours through the year; Course A (see pp. 38, 40) of whichever of these languages was not offered as part of the preparation for college. Alternative with Latin.

Biology.—6 hours through the year; laboratory practice, with additional exercises, (readings, etc.,) at the discretion of the instructor. (Counts as three hours.)

SOPHOMORE YEAR.

French or German.—4 hours through the year. The student takes whichever of these two languages was not included in his preparation for college; Course A (see pp. 38, 40) if he did not have it in Freshman year, otherwise Course B.

Chemistry.—9 hours through the year; laboratory work and recitations. Roscoe's Elements of Chemistry. (Counts as four hours.)

Physics.—2 hours in the first half-year and 3 in the second. (Course B, p. 42.)

Oratory.—2 hours, first half-year. (Counts as one hour.)

Zoology.—Second half-year, 3 hours.

Mathematics.—The same courses in Analytical Geometry are offered as to the A. B. student, occupying 4 hours in the first half-year and 3 hours in the second. But as an alternative *Astronomy* may be chosen in the first and *English* in the second half-year.

Astronomy.—First half-year, 4 hours. (Course 13, p. 42.) Alternative with Analytical Geometry.

English.—First half-year, 2 hours—Applied Rhetoric. Second half-year, 3 hours—American Literature (Course 4, page 37). This latter course is alternative with Analytical Geometry to students who have taken the Mathematics of the first half-year, but those who elect Analytical Geometry in the second half-year will be required to include American Literature among the electives of Junior or Senior year.

JUNIOR YEAR.

Logic and Psychology and Political Economy.—The requirements in these branches are the same as in the A. B. course.

Geology.—4 hours through the year. Scott's Introduction to Geology. Le Conte's Elements of Geology; field excursions.

Electives.—Amounting to 5 hours in the first half-year and 9 in the second.

SENIOR YEAR.

The requirements are the same as those in the Bachelor of Arts course above.

History—In Junior or Senior year, the student in this, as in the A. B. course, will choose among his electives as much as four hours of History for one-half year.

ELECTIVE STUDIES FOR JUNIORS AND SENIORS IN THE A. B. AND PH. B. COURSES.

The following Electives, though intended primarily for A. B. and Ph. B. students, are also open to students taking the S. B. course. The Electives more especially designed for the latter course will be found below, under the various subdivisions of the S. B. work. Unless otherwise stated, each Elective Study continues through the year, and is open to both Seniors and Juniors.

PHILOSOPHY.—(Page 32.)

Hours per week.	
2	*Modern German Philosophy*, first half-year.
2	*The Philosophic Movement in England*, second half-year.
2	*Advanced Logic*, second half-year.
2	*Lotze*, second half-year.
1	*Seminary in Social Ethics*, second half-year.
1	*Seminary in Greek Philosophy*, one half-year.

MATHEMATICS AND ASTRONOMY.—(Page 40.)

4	*Calculus*, Differential and Integral (Course 8).
4	*Analytical Geometry* (Courses 6 and 7), while forming part of the regular Sophomore work for some students, is offered as a Junior or Senior elective to the others. First half-year.
4	*Projective Geometry* (Course 9).
2	*History of Mathematics*, second half-year, (Course 10).
3	*Higher Algebra and Higher Plane Curves* (Course 11).
4	*Astronomy*, Elementary (Course 13). See the above remark under Analytical Geometry. First half-year.

Hours per week.

2 *Astronomy.* Observatory work with problems in Mathematical Astronomy. (Part of course 14.) Second half-year.

CHEMISTRY.—(Page 43.)

4 *General and Applied Chemistry.* Sophomore Chemistry prerequisite.
4 *Chemical Analysis*, Qualitative.
4 *Chemical Analysis*, Quantitative. (Qualitative Analysis prerequisite.)
3 *Theoretical Chemistry.*

PHYSICS.—(Page 42.)

2 *Applications of Electricity* (Course D).
2 *Theory of Light* (Course F).
2 *Laboratory Practice in Physics* (Course E).

BIOLOGY.—(Page 46.)

3 *Zoology;* second half-year. (Elective to A. B. students.)
3 *Comparative Anatomy;* first half-year. (Zoology prerequisite.)

GEOLOGY.—(Page 48.)

4 *Inorganic Geology;* first half-year. (A. B. elective.)
4 *Organic Geology;* second half-year. (A. B. elective.)
3 *Paleontolgy;* second half-year. (Zoology prerequisite.)

ECONOMICS.—(Page 49.)

3 *Public Finance;* second half-year.
2 *Money and Banking;* first half-year.
2 *Railroads;* second half-year.
2 *Socialism;* second half-year.
1 *Sociological Seminary;* second half-year.

POLITICS.—(Page 50.)

3 *Historical Politics;* first half-year.
3 *Comparative Politics;* second half-year.
1 *International Law;* first half-year.

HISTORY.—(Page 51.)

4 *English History;* first half-year.
4 *United States History;* second half-year.
2 *History of the Middle Ages;* first half-year.
2 *History of the Renaissance;* second half-year.

ENGLISH.—(Page 37.)

3 *American Literature;* second half-year.
3 *Early English Literature;* first half-year.
3 *Elizabethan Drama;* second half-year.
3 *English Poetry, Dryden to Wordsworth;* first half-year. Open to Seniors.

Hours per week.

3 *English Prose, Bunyan to De Quincey;* second half-year. Open to Seniors.
2 *Victorian Literature;* first half-year. Open to Seniors.

GREEK.—(Page 34.)

2 *Greek History;* one half-year.
2 *Greek Philosophy;* one half-year.
2 *Greek Oratory;* one half-year.
2 *Greek Epic and Lyric Poetry;* one half-year.

LATIN.—(Page 35.)

2 *The Roman Drama;* one half-year.
2 *Roman Lyric and Elegiac Poetry;* one half-year.
2 *Roman Satiric and Epigrammatic Poetry;* one half-year.
2 *Roman History;* one half-year.
2 *Roman Philosophy;* one half-year.

GERMAN.—(Page 38.)

2 *Schiller and Goethe* (German C); first half-year.
2 *Lessing and Goethe* (German D); second half-year.
1 *History of German Literature* (German E).
2 *The Nibelungenlied, etc.* (German F).
3 *Middle High German* (German G); one half-year.
2 *Gothic* (German H).
2 *Faust* (German I).

FRENCH.—(Page 40.)

2 *Racine and Corneille* (French C); first half-year.
2 *Racine, Corneille and Victor Hugo* (French D); second half-year.
2 *History of French Literature* (French E).
2 *Rousseau* (French F).

SPANISH.—(Page 40.)

3 *Elementary Course* (Spanish A).
2 *Castelar and Cervantes* (Spanish B).

PUBLIC SPEAKING.—(Page 53.)

2 *Expression.*
2 *Oratory:* first half-year.
2 *Extemporaneous Speaking;* second half-year.
2 *Forensics;* first half-year.

BIBLE STUDY.—(Page 52.)

THEORY OF MUSIC.—(Page 73.)

2 *Harmony.*
2 *Counterpoint.*

HISTORY OF ART.

1 *Greek and Roman Architecture and Sculpture;* second half-year.

A student for any degree is usually permitted, further, to take as an elective any study required for another degree, that does not appear in the course required for his own degree. But, for this purpose, French A counts as 2 hours only, German A as 3 hours.

Seniors and Juniors should mail their choice of electives to the Dean of the Faculty, Atherton Noyes, Colorado Springs, in time to be received not later than September 10, 1897. The hours for electives (other than Senior and Junior English, which are included in the schedule on pp. 56–57), will then be assigned, and electives for which no application has been received may be withdrawn. When new electives are chosen at midyear, the Dean should be notified at least three days before the first recitation of the course.

BACHELOR OF SCIENCE.

The studies which are required of all candidates for the degree of Bachelor of Science are as follows:

FRESHMAN YEAR.

English.—As in the Freshman year of the A. B. course. 2 hours a week.

Biology.—As in the Freshman year of the Ph. B. course. (Counts as 3 hours a week.)

French B.—First half-year, 4 hours: second half-year, 2 hours.

Chemistry.—As in the Sophomore year of the Ph. B. course. 9 hours a week of recitation, lectures and laboratory work. (Counts as 4 hours.)

Expression.—As in the Freshman year of the A. B. course. 2 hours a week. (Counts as 1 hour.)

Analytical Geometry.—First half-year, 4 hours a week: second half-year, 3 hours. The same course which is offered to the election of A. B. students in Sophomore year.

Mechanics.—Second half-year, 3 hours a week.

SOPHOMORE YEAR.

English.—As in the Sophomore year of the A. B. course. First half-year, 2 hours a week; second half-year, 3 hours.

Physics.—Course C, page 42. 4 hours a week.

German.—First half-year, 4 hours a week; second half-year, 3 hours.

Mechanical Drawing.—First half-year, 5 hours a week. (Counts as 2 hours.)

Oratory.—First half-year, 2 hours a week. (Counts as 1 hour.)

Zoology.—As in the Sophomore year of the Ph. B. course. 3 hours a week for the second half-year.

Additional Requirement.—See below.

JUNIOR YEAR.

Logic and Psychology.—As in the Bachelor of Arts course. 4 hours a week through the year.

Geology.—As in the Junior year of the Ph. B. course. 4 hours a week through the year.

SENIOR YEAR.

History of Philosophy.—As in the Senior year of the A. B. and Ph. B. courses. 4 hours a week.

History.—In Junior or Senior year sufficient History must be included among the studies elected to amount to 4 hours for one half-year.

In the Freshman year the required studies tabulated above will occupy the entire time of the student. In the three succeeding years other required studies, differing according to the nature of the course selected, must be added to those above named; and still other studies are offered in each department as elective. The student will select so many of the latter as will make, together with the studies required of all S. B. candidates and those required for the course of his selection, sixteen or seventeen hours of recitation per week. The student's choice of electives is not limited to those offered in the department to which his principal studies belong; but he may take in place of them, so far as not prevented by conflict of hours, any branch which is a required study for any of the college courses, or any elective study in which a class may have been formed by students taking other courses than his own, whether leading to the degree of S. B. or to other degrees; provided, however, that the general scientific character of his course be maintained to the satisfaction of the Faculty.

ADDITIONAL REQUIREMENTS AND ELECTIVES.

COURSE IN PURE MATHEMATICS AND ASTRONOMY.

Sophomore Year.—Calculus (required): 4 hours a week.

Junior Year.—Physics E (required); 2 hours a week. Astronomical

Observations and Computations (required); 4 hours a week in the second half-year. Higher Algebra and Plane Curves (elective); 3 hours a week. History of Mathematics (elective); 2 hours a week for half the year. Projective Geometry (elective); 4 hours a week for the second half-year.

SENIOR YEAR.—(In addition to the foregoing elective studies.) Theory of Substitutions (elective); 2 hours a week. Mathematical Astronomy (elective); 2 hours a week. Differential Equations (elective); 3 hours a week, one half-year.

COURSE IN PHYSICS.

SOPHOMORE YEAR.—Calculus (required); 4 hours a week.

JUNIOR YEAR.—Physics D (required); 2 hours a week. Physics E (required); 2 hours a week. Analytical Mechanics (elective); 2 hours a week. Astronomical Observations and Computations (elective); 4 hours a week in the second half-year.

SENIOR YEAR.—Physics F (required); 2 hours a week. Differential Equations (elective); 3 hours a week, one half-year.

COURSE IN CHEMISTRY.

SOPHOMORE YEAR.—Qualitative Analysis (required); 4 hours a week.

JUNIOR YEAR.—Quantitative Analysis (required); 4 hours a week. Organic Chemistry (required); 3 hours a week in the second half-year.

SENIOR YEAR.—Advanced General and Applied Chemistry (required); 4 hours a week. Theoretical Chemistry (elective); 3 hours a week.

COURSE IN BIOLOGY.

SOPHOMORE YEAR.—Cryptogamic Botany (required); 3 hours a week in the first half-year.

JUNIOR YEAR.—Comparative Anatomy of Invertebrates (required); 3 hours a week.

SENIOR YEAR —Comparative Anatomy of Vertebrates (required); 3 hours a week in the first half-year. Comparative Embryology (required); 3 hours a week in the second half-year.

COURSE IN GEOLOGY.

SOPHOMORE YEAR.—Mineralogy (required); 3 hours a week in the first half-year.

JUNIOR YEAR.—Lithology (required); 3 hours a week in the first half-year. Invertebrate Paleontology (required); 3 hours a week in the second half-year.

Senior Year.—Economic Geology (required); 3 hours a week in the first half-year. Vertebrate Paleontology (required); 3 hours a week in the second half-year.

Some of the studies offered as elective in this scheme can be taken only by students who have previously completed certain antecedent studies. Such relations between different courses, when not clearly indicated in the preceding table, may be learned either from the following detailed accounts of the work of the several departments, or from the instructor.

DEPARTMENTS OF INSTRUCTION.

A more detailed account of the different branches of study included in the College curriculum will be found below:

PHILOSOPHY.

This course extends over the whole of the Junior and Senior years, and gives the student a knowledge of the development of thought in the several departments of Philosophy. The various Seminary courses afford valuable training in the study and discussion of important psychological, sociological, and ethical questions.

1. Logic.—Jevons' Elementary Lessons, used as a basis for lectures, recitations and discussions. Regular courses of outside reading required, and a thesis upon the origin and development of language. Four hours, 14 weeks at the beginning of the year.—Miss Noyes.

2. Psychology.—James' Principles of Psychology. Lectures, recitations and experiments. Four hours the remainder of the year.—Pres. Slocum and Miss Noyes.

Lectures:

(*a.*) Introductory series.—President Slocum.
(*b.*) Psycho-physics.—President Slocum.
(*c.*) The Anatomy of the Brain; Microscopic Analysis of Nervous Tissues.—Dr. Leonard Freeman.
(*d.*) Localization of General Cerebral Functions.—Dr. H. T. Pershing.
(*e.*) The Psychology of Speech.—Dr. H. T. Pershing.

(*f*.) Physical Basis of the Higher Mental Faculties.—DR. H. T. PERSHING.

(*g*.) Hysteria and Hypnotism.—DR. H. T. PERSHING.

(*h*.) Some Phenomena in States of Disturbed Consciousness.—DR. J. T. ESKRIDGE.

3. PSYCHOLOGICAL LABORATORY.—Opportunity will be afforded for the conducting of experiments in special lines.

4. PSYCHOLOGICAL SEMINARY.—The leading subjects in Modern Psychology. Theses and Discussions. Study of the following subjects: The Relations of Mind and Body; Double Consciousness; Animal Psychology; The Psychology of Defectives; Mental Evolution in Man; Unconscious Cerebration; Diseases of the Memory; Diseases of the Will; Memory in Children; Dreams; The Psychology of Music; Herbart and Spencer on Education. Each student is also required to select some one subject for independent study and investigation during the year. One hour.—PRESIDENT SLOCUM.

5. HISTORY OF PHILOSOPHY.—Lectures, recitations and conferences. Four hours.—PRESIDENT SLOCUM.

Lectures:

(*a*.) Study in Comparative Religions.—PRESIDENT SLOCUM.

(*b*.) Greek Philosophy. Twenty lectures.—PRES. SLOCUM.

(*c*.) Modern Philosophy. Fifteen lectures.—PRES. SLOCUM.

(1) The Rise and Fall of Scholasticism: (2) The Beginnings of Modern Philosophy—Bacon and Descartes; (3) Spinoza; (4) Locke; (5) The Sceptical Movement in France; (6) Leibnitz; (7) Berkeley; (8) Hume; (9) Kant, the Critique of Pure Reason; (11) Kant, the Transcendental Element in his Philosophy; (12) Hegel; (13) Schopenhauer; (14) Lotze; (15) Spencer—The Philosophy of Evolution.

These lectures will be followed by a series of conferences, conducted by President Slocum.

6. METAPHYSICAL SEMINARY.—One hour.—PRESIDENT SLOCUM.

Presentation of papers and discussion of the following subjects:

(*a*.) The Great Religions of the World.

(*b*.) The Psychological Basis of Religious Faith.

(*c*.) The Psychological Basis of Aesthetics.

(*d*.) Philosophical Thought in England during the Nineteenth Century.

(*e*.) Evolution: its History, Development and Results.

7. Ethics.—Janet's Theory of Morals. Lectures, theses and discussions. Four hours.—President Slocum.

   Lectures:

   - (*a.*) The Fundamental Principles of Ethics. Twelve lectures.—President Slocum.
   - (*b.*) The Ethical Teaching of the Old Testament. Three lectures.—Rev. James B. Gregg, D. D.
   - (*c.*) Christian Ethics. Three lectures.

8. Ethical Seminary.—One hour.—President Slocum.

   Presentation of papers and discussions upon the following subjects:

   - (*a.*) Modern Social and Sociological Problems.
   - (*b.*) The Ethical View of Citizenship.
   - (*c.*) A Study of Educational Theories from an Ethical Standpoint.

9. Elective Courses:

   - (*a.*) Modern German Philosophy. First half of Senior year. Two hours.—President Slocum.
   - (*b.*) The Philosophical Movement in England. Second half of Senior year. Two hours.—President Slocum.
   - (*c.*) Advanced Logic. Second half-year. Two hours.—Miss Noyes.
   - (*d.*) Lotze. Second half-year. Two hours.—Miss Noyes.
   - (*e.*) Seminary in Social Ethics—The Labor Question, Temperance, Pauperism and other social problems considered from an ethical standpoint. One hour, second half-year.
   - (*f.*) Seminary in Greek Philosophy. One hour, one half-year.

GREEK.

The studies in this department are prescribed for all candidates for the degree of Bachelor of Arts in the Freshman year, and are elective for the remainder of the College course.

The course is so arranged as to give the student an introduction to the several great departments of Greek Literature, and each author is studied from the literary as well as from the linguistic side. Particular care is taken to have the student acquire facility in reading Greek, and great stress is laid, throughout the course, on reading at sight. At the same time, accuracy is insisted on, and the student is required to translate into idiomatic English.

FRESHMAN YEAR.

1. *Homer*—Selections from the Odyssey and Iliad in the original, and all the poems in translation.

2. *Lysias*—Selections; History of Greek Oratory. *Plato*—Apology and Crito; 3 hours, first-half year. *Herodotus*—Selections; 3 hours, second half-year.

SOPHOMORE YEAR.

3. *Æschylus and Sophocles*—One play from each author in Greek, and all the plays in English. Four hours, first half-year.

4. *Euripides*—Two plays in Greek, and the most important remaining plays in English. Four hours, second half-year.

Candidates for the A. B. degree may substitute Analytical Geometry, either for both these courses or for that of the first half-year.

ELECTIVE.

1. Greek History.—*Herodotus;* careful study of the period of the Persian Wars. Readings from the dramatists for further illustration of the life of the period. *Thucydides;* the Sicilian Expedition. Parallel readings in Curtius, Grote, and other modern historians. Selections from Plutarch's Lives. Two hours, first half-year. Or—

2. Greek Philosophy.—*Plato*, Phaedo. Selections from other dialogues, and from the works of *Xenophon*. Zeller's Socrates and the Socratic Schools; Plato and the Older Academy; Stoics, Epicureans and Sceptics. Wallace's Aristotle. Two hours, first half-year.

3. Greek Oratory.—*Lysias* and *Demosthenes*, with selections from the other Attic Orators from Antiphon to Lycurgus. Two hours, second half-year. Or—

4. Greek Epic and Lyric Poetry.—*Homer, Hesiod* and *Pindar*, with selections from the Anthology. Two hours, second half-year.

LATIN.

The study of Latin extends throughout the four years of the College course. It is obligatory in the Freshman and Sophomore years upon candidates proceeding to the degree of Bachelor of Arts, while students in the Bachelor of Philosophy course may choose it as an alternative to French or German in the Freshman year. In the Junior and Senior years a choice of Electives is offered.

The aim of the department will be to develop the power of reading Latin with some facility, to secure a thorough knowledge of the mechanism of the language, to stimulate the appreciation of Latin literature, and to give a general acquaintance with the history, antiquities and life of the Roman people.

Much stress is laid upon sight translation and Latin prose composition. Instruction is given mainly by recitations; but these are supplemented by occasional lectures by the instructor, and, in the last two years, by Seminary work.

The following are the texts at present prescribed as the basis of instruction; to which must be added, in all the years, sight translation from authors not specified, and, in the Freshman and Sophomore years, Latin prose composition.

FRESHMAN YEAR.

First Half—Livy, Book XXII; Cicero, De Senectute.

Second Half—Tacitus, Dialogus de Oratoribus; Horace, Odes I, II.

Four hours a week throughout the year.

SOPHOMORE YEAR.

First Half—Vergil, Georgics II; Pliny, Selected Letters.

Second Half—Horace, Epistles I; Cicero, Tusculan Disputations, I, II.

Three hours a week throughout the year.

JUNIOR AND SENIOR YEARS—ELECTIVE.

(*a.*) THE ROMAN DRAMA.—History and characteristics of Roman Tragedy and Comedy. Fragments of *Naevius*, *Ennius*, *Pacuvius*, *Attius*, *Caecilius Statius*, *Titinius*, *Afranius*, *Laberius*, *Publilius Syrus*, etc. (Ribbeck's Scenicæ Romanorum Poesis Fragmenta.) *Plautus*, Menæchmi; *Terence*, Adelphi; *Seneca*, Troades. Parallel readings in English literature. One half-year, two hours a week.

(*b.*) ROMAN LYRIC AND ELEGIAC POETRY.—Sources, development and characteristics of Lyric and Elegiac Poetry in Rome. Fragments of *Calvus*, (Lachmann); *Catullus*—Selections, (Simpson); *Vergil*,—Copa; *Horace*—Odes III, IV; *Tibullus*—Selections, (Ramsay); *Propertius*—Selections, (Ramsay); *Ovid*—Selections, (Ramsay), *Statius*—Selections from the Silvae. Discussion of questions in literature and criticism. One half-year, two hours a week.

(*c.*) ROMAN SATIRIC AND EPIGRAMMATIC POETRY.—History and characteristics of Roman Satire. Fragments of *Lucilius*, (Lucilii Saturarum Reliquiæ,—Müller), *Varro* (Bücheler); *Horace*, Satires, Book II; *Persius*, I, II, V; *Petronius*, (Bücheler); *Sulpicia; Juvenal*, I, IV, VIII; *Martial*, Selections. Parallel studies in English literature. One half-year, two hours a week.

(*d.*) Roman History.—Roman conceptions of the Philosophy of History. The Early Historians, (Peter's Veterum Historicorum Romanorum Reliquiæ); *Cæsar*—Selections from Books VI, VII; *Sallust*—Catiline; *Livy*—Selections from Books I, IX, XXI; *Tacitus*—Annals I, XV; Histories V. Short studies in *Nepos*, *Velleius Paterculus*, *Valerius Maximus*, *Quintus Curtius*, *Suetonius*. Discussion of various historical problems. One half-year, two hours a week.

(*e.*) Roman Philosophy.—History and aspects of Philosophy in Rome. Stoics, Epicureans, Sceptics and Eclectics. *Lucretius*, Selections from De Rerum Natura; *Cicero*, De Finibus I, De Officiis I, De Natura Deorum III; *Seneca*, De Providentia Liber. Roman treatment of various philosophical problems. Influence of Philosophy on Roman life and literature. One half-year, two hours a week.

ENGLISH.

The following courses are offered:

1. *History of the English Language.*—One-half of the first half-year. Two hours a week. Required of Freshmen. Emerson's A Brief History of the English Language, Parts I-IV.

2. *Advanced Rhetoric.*—Essays. Remainder of the year. Two hours a week. Required of Freshmen. Genung's Rhetoric and Rhetorical Analysis.

3. *Applied Rhetoric.*—Composition work, with constant reference to Genung's Rhetoric. Frequent themes in and out of the class room. First half-year. Two hours a week. Required of Sophomores.

4. *American Literature.*—Authors studied: Irving, Cooper, Poe, Bryant, Hawthorne, Longfellow, Emerson, Thoreau, Lowell, Holmes, Whittier. Essays. Second half-year. Three hours a week. Required of Sophomores (except as stated on page 25). Open to Juniors and Seniors.

5. *English Literature.*—From the Anglo-Saxon Conquest to Milton, inclusive. Brooke's English Literature used as an outline. The principal literature of the Anglo-Saxon and Early English periods read rapidly, and Chaucer, Spenser, Bacon and Milton studied carefully. Essays. First half-year. Three hours a week. Elective for Juniors and Seniors.

6. *The Elizabethan Drama.*—Marlowe, Ben Jonson, Beaumont and Fletcher, Webster studied with Thayer's Best Elizabethan Plays.

The larger part of the half-year devoted to Shakespeare. The principal plays read rapidly, with special attention to the development of his genius. Essays. Second half-year. Three hours a week. Elective for Juniors and Seniors.

7. *English Poetry.*—From Dryden to Wordsworth. Authors studied: Dryden, Pope, Thomson, Gray, Cowper, Burns, Scott, Byron, Moore, Shelley, Keats, Coleridge, Southey, Wordsworth. Each student writes an exhaustive essay on one author for criticism by the class. First half-year. Three hours a week. Elective for Seniors.

8. *Victorian Literature.*—Authors studied: Carlyle, Tennyson, Newman, Arnold, Ruskin, Robert Browning. Essays. First half-year. Two hours a week. Elective for Seniors.

9. *English Prose.*—From Bunyan to DeQuincey. Authors studied: Bunyan, Addison, Swift, Johnson, Goldsmith, Burke, Macaulay, Lamb, DeQuincey. Each student writes an exhaustive essay on one author for criticism by the class. Second half-year. Three hours a week. Elective for Seniors.

DEPARTMENT OF MODERN LANGUAGES.

GERMAN LANGUAGE AND LITERATURE.

German A:

Elementary Course—Joynes-Meissner's Grammar. Andersen's Maerchen; Storm, Immensee; Hauff, Das Kalte Herz, Die Karavane; Eichendorff, Aus dem Leben eines Taugenichts. Four hours throughout the year.

German B:

Intermediate Course—Riehl, Fluch der Schoenheit; Jensen, Die braune Erica; Chamisso, Peter Schlemihl; Heine, Harzreise; Gerstaecker, Germelshausen; Lessing, Minna von Barnhelm; Schiller, Wilhelm Tell; Lyrics and Ballads; Von Jagemann's Prose Composition and Syntax. Four hours throughout the year.

German C:

Schiller, Maria Stuart, Die Jungfrau von Orleans; Goethe, Egmont; Sime's Life of Goethe. Two hours, first half-year.

German D:

Lessing, Emilia Galotti, Nathan der Weise; Rollestone's Life of Lessing; Goethe, Iphigenie. Two hours, second half-year.

GERMAN E:

An Outline of the History of German Literature. This course is conducted in English, and is open to all college students whether they are taking German or not. Kuno Francke's Social Forces in German Literature will be used as textbook. This reading will be supplemented by twelve lectures by the instructor. One hour a week throughout the year.

GERMAN F:

The Nibelungenlied and the Classic Period of the Twelfth century. Hartmann von Aue, Wolfram von Eschenbach, Gottfried von Strassburg. Lectures and collateral reading. Two hours throughout the year.

*GERMAN G:

Middle High German—Braune-Paul's Mittelhochdeutsche Grammatik; Nibelungenlied; Kudrun; Walter von der Vogelweide. Three hours a week for one half-year; a fourth hour at the discretion of the instructor.

*GERMAN H:

Gothic—Braune's Gotische Grammatik; Heyne's Ulfilas. Two hours throughout the year.

GERMAN I:

The Faust-legend and its Development, and Goethe's Faust.

Synopsis of the Course:

CHAPTER I. Kindred Legends before the 16th Century.
(*a.*) Simon Magus. (*b.*) Ahasverus. (*c.*) Anthemios, Proterius and Theophilus. (*d.*) Cyprianus Antiochus. (*e.*) Tannhaeuser and Don Juan.

CHAPTER II. The historic Faust; the "Faustbuch" of 1587 and its development; the "Puppenspiele."

CHAPTER III. Faust Dramas before the 18th Century.
(*a.*) Calderon's El Magico Prodigioso.
(*b.*) Marlowe's Tragical History of Doctor Faustus.

CHAPTER IV. Faust in the 18th Century.
Lessing's Fragment; Maler Mueller, Klinger, etc.

CHAPTER V. Goethe's Faust.
(*a.*) The "Urfaust."
(*b.*) Faust, Part I, 1808.
(*c.*) Faust, Part II.

This course is conducted entirely in German. The class meets once a week. Open to the public.

---

*German G and H are given in alternate years.

FRENCH LANGUAGE AND LITERATURE.

French A:

Elementary Course—Edgren's French Grammar; Super's Reader; About, Le Roi des Montagnes; Halévy, L'Abbé Constantin. Reading at sight. Four hours throughout the year.

French B:

Intermediate Course—Chassang's Grammaire Francaise, Cours moyen. Dictation. Sandeau, Mlle. de la Seiglière; George Sand, La Mare au Diable; Corneille, Le Cid, Horace; Racine, Andromaque, Athalie; Molière, Le Bourgeois Gentilhomme, Les Précieuses Ridicules, L'Avare; Bowen's French Lyrics; La Fontaine, Fables. Modern prose writers. Four hours throughout the year.

French C:

Racine, Athalie, Andromaque, Phèdre, Les Plaideurs; Corneille, Le Cid, Cinna, Polyeucte. Two hours, first half-year.

French D:

Racine, Esther, Brittanicus; Corneille, Le Menteur, Horace; Moliére, Le Tartuffe, Les Femmes Savantes; Victor Hugo, Hernani. Two hours, second half-year.

French E:

History of French Literature—Lectures and collateral reading. Two theses. Two hours throughout the year.

French F:

A special study of Jean Jacques Rousseau, and a comparison between Rousseau and Byron. Two hours throughout the year.

SPANISH LANGUAGE AND LITERATURE.

Spanish A:

Elementary Course—Monsants and Anguellier, A Practical Course in the Spanish Language. Conversation during the second half-year. Three hours throughout the year.

Spanish B:

Castelar. Selgas. Valera. Sista. Cervantes. Composition. Two hours throughout the year.

MATHEMATICS AND ASTRONOMY.

The courses offered in this department include the following subjects:

1. *Plane Trigonometry.*—The functions of one and two angles;

the solution of triangles; simple applications. Thirteen weeks; four hours a week.

2. *Solid Geometry.*—Planes and Lines in Space; Polyhedra; the Cylinder, Cone and Sphere. Eight weeks; four hours. (Alternative with 4 below.)

3. *Spherical Trigonometry.*—With simple applications. Six weeks; four hours. (Alternative with 4.)

4. *Elementary Surveying.*—Field work and computations. (Alternative with 2 and 3 above.) Fourteen weeks; four hours.

5. *Algebra.*—Series; the Binomial Theorem; Exponential and Logarithmic Series; Numerical Equations of any Degree. Seven weeks; four hours.

The foregoing, for students in the A. B. and Ph. B. courses, complete the requirements in pure mathematics, and are all contained in the work of Freshman year. Candidates for the degree of S. B. must present these subjects (except 4) as part of their preparation for college. (See p. 20.) 1 is essential, and 2, 3 and 5 very useful in the study of any of the following:

6. *Analytical Geometry (Elementary).*—Plane Loci of First and Second Order. First half-year, four hours. Required of Freshmen in the S. B. course. For Sophomores in the A. B. course, alternative with Greek; in the Ph. B. course, with Astronomy—13 below.

7. *Analytical Geometry* (*continued*).—(Course 6 prerequisite.) More thorough study of plane loci, with the elements of the tridimensional geometry. Second half-year, three hours. Required of Freshmen in the S. B. course. For Sophomores in the A. B. course, alternative with Greek, in the Ph. B. with American Literature.

8. *Calculus, Differential and Integral.*—Required in some of the courses leading to the degree of S. B., elective in others. (See pp. 30–31.) Elective to Juniors and Seniors in the A. B. and Ph. B. courses. Course 6 prerequisite. The course continues through a whole year; but where it is elective, the first half-year may be taken without the second. Four hours a week.

9. *Projective Geometry*—(Cremona's treatise).—Second half-year, four hours a week. Elective in the S. B. course and to Juniors and Seniors in the A. B. and Ph. B. courses.

10. *History of Mathematics*—Cajori's History of Elementary Mathematics, with selections from his larger work.—Second half-year, two hours a week. Elective.

11. *Higher Algebra and Higher Plane Curves*—(Selections from Salmon's works).—Course 7 prerequisite. Three hours a week through the year. Elective.

12. *Theory of Substitutions*—(From Netto).—Two hours. Elective to candidates for the degree of S. B. in Senior year.

13. *Astronomy* (*Elementary*).—Required in some of the courses leading to the degree of the S. B., in Junior year. To Ph. B. Sophomores, alternative with Analytical Geometry (6 above). Elective to Juniors and Seniors. First half-year, four hours. The descriptive, rather than the mathematical side of astronomy, is emphasized, and the work conducted chiefly in the form of recitations from a text-book. Howe's Descriptive Astronomy will be used.

14. *Astronomy* (*Observations and Computations*).—The student is expected to make free use of the telescope. Second half-year, four hours. This course, for S. B. students, is in continuation of the preceding. It is also elective to Juniors and Seniors in the A. B. and Ph. B. courses, but the above (13) is ordinarily prerequisite.

15. *Mathematical Astronomy.*—Planetary Orbits, etc. Two hours. Elective to S. B. students in Senior year.

16. *Differential Equations.*—Three hours, one half-year.

PHYSICS.

Physics A:

Required for the degree of A. B. This is a general course taught by text-book and informal lectures. A prominent feature of the course is laboratory practice, consisting largely of measurements. Four hours for one year.

Physics B:

Required for the degree of Ph. B. This is a laboratory course on measurements, for students who already have had an elementary course in Physics. To insure the mastery of the theory, the student is expected to consult works on Physics in connection with each experiment. Two hours, first half-year; three hours, second half-year.

Physics C:

Required for the degree of S. B. This general course is given to students who have had courses in elementary physics and in mechanics. The laboratory work is substantially the same as in *Physics B*. The class-work embraces Electricity and Magnetism, together with two out of the three following subjects: Heat, Light, Sound. Four hours for one year.

PHYSICS D:

Applications of Electricity.—In this course Bedell's Principles of the Transformer has been studied this year. Two hours for one year. Elective.

PHYSICS E:

More advanced laboratory practice. The work done this year includes the standardizing of galvanometers, the determination of permeability and hysteresis curves for iron, the determination of coefficients of self-induction and mutual induction, the measurement of the sensibility of a balance, of the acceleration of gravity, etc. Two hours for one year. Elective.

PHYSICS F:

More advanced course on Light, or on Electricity and Magnetism. Two hours for one year. Elective.

ELEMENTARY MECHANICS:

Prerequisite for *Physics C.* The course embraces (1) the solution of numerous problems involving the composition and resolution of forces, accelerations and velocities, or the calculation of work, energy and momentum; (2) the determination of the moments of inertia of a few regular figures; (3) the derivation of the formula for the time of oscillation of a simple pendulum. Three hours, second half-year.

CHEMISTRY.

REQUIRED WORK.

Sophomore Class, A. B. Course. Beginning Chemistry.—The time given to the subject in this course comprises four periods a week of recitation, discussion, or lectures, and four periods of work in the laboratory.* The general text-book work (chiefly upon Inorganic Chemistry) is supplemented by lectures and discussions upon the fundamental laws of chemistry, the applications of chemistry to sanitary science, medicine, and some of the arts, and also by the occasional preparation of papers from descriptions given in technical books, and by reports of visits to accessible metallurgical and manufacturing establishments. The experimental work is made very thorough and exacting, to secure a practical familiarity with the substances studied, and with the methods of manipulation practiced in chemical laboratories. It is deemed highly important that habits of careful work and accurate observation be acquired at the beginning of the student's scientific training. The experiments are necessarily largely qualitative, but, when practicable, certain quantitative work is introduced. The course covers sufficient Qualitative Analysis to enable the student to separate the common metals and acids, and includes a few simple determinations in Quantitative Analysis. The text-book is Remsen's Introduction to the Study of Chemistry, or some other approved work.

---

*The periods of recitation and laboratory work taken together count as four per week upon the time requirements of the year. In order, however, that the hours taken for this subject may not be proportionately excessive, the laboratory work is considered a part of the usual preparation of lessons, and the length of time exacted for study or writing is made correspondingly short.

Sophomore Class, Ph. B. Course. Second Year Work.—The subject is so presented as to give a general knowledge of chemistry and furnish a basis for the scientific studies of the Junior and Senior years. Nine periods per week during the year are required.* Recitations and lectures are employed, as occasion may require, for the purpose of instruction; and work in the laboratory is systematically and constantly pursued under the supervision of the instructor. The experimental work supplements and illustrates, as far as practicable, the theoretical and descriptive portions of the subject, and includes a practical though an abbreviated acquaintance with Analytical and Synthetic Chemistry. The principles of chemistry, its practical application in the arts, and its uses in the explanation of the phenomena of daily life, are brought prominently forward in the course, and the student is also trained to obtain readily from technical works the data and details familiar only to the professional chemist. Special series of experiments will, from time to time, be required, and written reports upon the work must be handed in. The preparation of abstracts from books on Chemical Technology and Sanitary Science will occasionally take the place of the general work. Roscoe's Elements of Chemistry will be used for study and reference. The experimental work corresponds in character, though not in extent, to that given in Reynolds' Experimental Chemistry.

ELECTIVE WORK (ADVANCED).

The following electives have been arranged for students who wish to continue the chemical work of the Sophomore year, Ph. B. Course:

(a.) *General and Applied Chemistry.*—This course follows in the main the outlines of the work of the required course. Theoretical

---

* See foot note on page 43.

Chemistry is much more fully treated, and more elaborate and delicate experiments are required, but the preparation of inorganic compounds constitutes the greater portion of the laboratory work. The more recent advances, both in Theoretical and Applied Chemistry, are noted and discussed in connection with the various elements or groups, under consideration. The applications of chemistry to the arts are studied in greater detail, and the modern uses of chemistry in the sciences of Biology, Medicine, Geology, etc., are treated as fully as the length of the course will permit. Instruction is given in part by lectures, but references are freely made to the works of Remsen, Fownes, Roscoe and Schorlemmer, etc., for particular subjects. Certain works on Sanitary Science are assigned for private study and the preparation of abstracts and written discussions. In lieu of the usual preparation of lessons for recitation, students are required to perform in the laboratory the experiments given in the lectures and such others, in addition, as may be outlined for practice. The hours of lecture and recitation are four a week, continued for one year. The hours required for laboratory work are six a week for the same period. Both together count as four hours on the time requirement of the year.

(b.) *Qualitative Chemical Analysis.*—This course is open only to students who, by previous study of General Chemistry, are properly qualified for the work. The time occupied by the course is one year, and the hours required for laboratory work are equivalent to two consecutive periods, four days a week, both together being counted as four hours on the time requirement of the year. The lectures will be given at such hours and at such intervals as shall be best suited to the class. A text-book for reference and study will be assigned at the beginning of the year. The work of the course comprises experimental drill in obtaining characteristic reactions of the more common elements, study of empirical formulæ and symbolic expression of reactions, solution of substances, separation of groups of elements, and finally analysis—first of simple salts and later of complex mixtures. The analytical work is confined almost wholly to inorganic substances, but includes certain common organic acids and a few organic bodies of general and medicinal use. The final examination is both experimental and theoretical in character.

(c.) *Quantitative Chemical Analysis.*—The course in Quantitative Analysis presupposes a knowledge of General Chemistry and Qualitative Analysis. In it are included the volumetric measurement of liquids, the accurate use of fine balances, and the general subject of Stoichiometry. In the earlier part of the course, the student is made familiar with gravimetric and volumetric determinations of single elements, by approved methods. Complete analysis of simple salts follow next in order. Salts, alloys, minerals, ores, slags and mineral water, are among the substances required to be analyzed by the student. The analysis of inorganic substances only is studied in this course. As a final part of his work in the course, the student is given practice in a few of the commercial or rapid determinations of the constituents of ores and minerals.

The course occupies one year. The laboratory work occupies three consecutive hours, four days a week, (counted as four hours on the time requirement of the year.) Lectures will be given at intervals through the course. The text-book will be Quantitative Analysis by Cairns.

S. B. COURSE IN CHEMISTRY.

An outline of this course is given on page 31. It includes as required studies the electives marked (a.), (b.) and (c.), outlined above, and Organic Chemistry. Theoretical Chemistry may also be taken in this course as an elective. Other subjects must be chosen from the electives offered in other courses, to make up the full number of schedule hours required.

DEPOSITS, CHEMICALS, SUPPLIES, ETC.

The cost of chemicals, glassware and supplies used by students in any of the courses mentioned, must be defrayed by themselves. A deposit, estimated as probably sufficient to cover the ordinary expenses of the work, must be made by each student with the instructor at the beginning of the year. Chemicals and general supplies are issued to students as needed. Glassware and necessary apparatus are loaned, and must be returned by the student in good condition, or paid for if damaged or destroyed. The deposit required for each course is as follows:

General Chemistry—Preparatory course	$4 00
General Chemistry—Sophomore year, A. B. course	5 00
General Chemistry—Sophomore year, Ph. B. course	6 00
General Chemistry—Elective course	10 00
Qualitative Analysis—Elective course	15 00
Quantitative Analysis—Elective course	15 00
Organic Chemistry—Elective course	15 00

BIOLOGY.

A laboratory, equipped with dissecting-tables and trays, reagents, twelve compound microscopes, a dissecting-microscope, a sledge microtome, and other apparatus, affords the larger facilities for the work offered in the line of Biology. Students supply for themselves the smaller items of equipment and a considerable part of the biological material required for their work.

Elementary Biology.—Required of Freshmen in the Ph. B. and S. B. courses. The study extends through the year, comprising three laboratory exercises a week, usually of two hours each, with prescribed readings and other exercises at the discretion of the instructor. Special attention is given to the morphology of the Arthropoda, the work including the dissection of the Crayfish and Grasshopper, and comparison of the latter with other Tracheata. This is followed by a study of the skeletal structures in one or two of the following groups: Sponges, Corals, Echinoderms, Mollusks. Considerable time is also given to the study of Foraminifera, fresh-water Rhizopoda, ciliated, flagellated, and tentacled Infusoria, Rotifera and other microscopic Vermes, Hydra and marine Hydrozoa, and Molluscoidea, and to the histology of the blood, teeth, and more important tissues of the Vertebrata. The botanical part of the work begins with the histology of the flowering plants. Pine and hard wood are studied in transverse, radial, and tangential section; then exogenous and endogenous herb-stems, leaves, roots and plant-hairs. Then follows the study of selected types of non-flowering plants, such as Yeasts, Bacteria, Oscillatoriæ, Moulds, Hygrocrocis, Diatoms, Desmids, Spirogyra, Lichens, Fungi, Mosses, Ferns. No text-book is closely followed, the work being personally superintended by the instructor; but students are required to provide themselves with some elementary book or books on Biology, and they have access to a small working library which the College maintains in the laboratory for their especial use, and also to certain monographs in the private library of the instructor.

Cryptogamic Botany.—Required of Sophomores in the Biology division of the S. B. course; three times a week for the first half-year. Advanced study of the non-flowering plants. Aside from the collecting of plants, some outside reading and occasional recitations or quizzes, the course consists of laboratory work. Text-book, Bennett and Murray's Handbook of Cryptogamic Botany. As reference-works, the writings of Sachs, De Bary, Bessey, Rabenhorst, Wolle, Cooke, Fries, Ellis, etc., are used. Elementary Biology is a prerequisite.

Zoology.—Required of Sophomores, Ph. B. and S. B. courses. Recitations and special exercises; three times a week for the second half-year. Text-book, Packard's Zoology.

Comparative Anatomy of Invertebrates.—Required of Juniors in the Biology division of the S. B. course; three times a week throughout the year. Laboratory work, with references to writings of Huxley, Gegenbaur, etc. Zoology is a prerequisite.

Comparative Anatomy of Vertebrates.—Required of Seniors in the Biology division of the S. B. course; three times a week for the first half-year. Laboratory work, with references to the writings of Flower, Wiedersheim, Huxley, Cuvier, etc. Zoology is a prerequisite.

Comparative Embryology.—Required of Seniors in the Biology division of the S. B. course; three times a week for the second half-year. Recitations and laboratory work. Text-books, Hertwig, Korschelt and Heider's Text-book of Embryology (translated by Mark and Woodworth). Zoology and the Comparative Anatomy of Invertebrates and of Vertebrates are prerequisites.

GEOLOGY.

The study of Geology is peculiarly attractive in the vicinity of Colorado Springs. Few localities present strata of so many geological ages or so varied an assemblage of rock and mineral species. Fossils of systems as early as the Cambrian and as late as the Quaternary occur within a radius of six miles of the College. Veins, dikes, faults, caves, flood-plains, river-erosion, sand-carving and the results of orogenic and glacial action are all well illustrated near at hand.

To the wealth of geological illustration that nature presents to the student in this district, the College Museum and a selection of lantern slides add many instructive specimens and views. The equipment of the geological laboratory includes a lithological microscope, a lithological lathe, standard series of mounted microscopic rock sections and some of the more important of the micro-photographically illustrated atlases of lithology.

Geology.—Required of Juniors in the Ph. B. and S. B. courses; four times a week through the year. Recitations and special exercises, supplemented by excursions to points of geological interest. In the first half-year, Dynamical and Structural Geology are studied; in the second, Historical Geology. Text-books: Scott's Introduction to Geology, LeConte's Elements of Geology. Zoology is a prerequisite.

Special students, to elect Geology, must previously have had as preparation for the work of the first half-year (Inorganic Geology) Elementary Chemistry; and for that of the second half-year (Organic Geology) at least a term's work in Zoology, Botany or Biology.

Mineralogy.—Required of Sophomores in the Geology course of the S. B. division; three times a week for the first half-year. This study is approached both from the physical and from the chemical side. The work consists, in part, of recitations, but more largely of laboratory practice in the determination of minerals. Text-book for recitation work, Dana's Mineralogy and Petrography.

Lithology.—Required of Juniors in the Geology course of the S. B. division; three times a week for the first half-year. Recitations from prescribed parts of Rosenbusch's Microscopical Physiography of the Rock-Making Minerals (Idding's translation); preparation of microscopical sections of rocks, followed by determinative work. Mineralogy is a prerequisite.

Economic Geology.—Required of Seniors in the Geology course of the S. B. division; three times a week for the first half-year. Recitations, with reference to illustrative specimens, and occasional visits to geological localities of special economic interest, and to industries based on geological resources. Text-book, Tarr's Economic Geology. Geology is a prerequisite.

Invertebrate Paleontology.—Required of Juniors in the Geology course of the S. B. division; three times a week for the second half-year. Laboratory study of fossils of principal groups is preceded, for the most part, by a study of recent forms of the same or allied groups. The student is guided in the consultation of leading authorities, such as Zittel, Steinmann and Dœderlein, Bernard, Nicholson, Tryon, etc. Zoology is a prerequisite.

Vertebrate Paleontology.—Required of Seniors in the Geology course of the S. B. division; three times a week for the second half-year. Laboratory studies in the Comparative Osteology, Taxonomy and Evolution of the Vertebrata. The student makes use of the general works and monographs of Flower, Zittel, Huxley, Cuvier, Leidy, Cope, Marsh, etc. Zoology is a prerequisite.

ECONOMICS.

The instruction in this department consists of a systematic course in the elements of Political Economy required of all students, followed by elective courses in special subjects. The systematic course is a prerequisite for the pursuit of any of the elective courses.

Elements of Political Economy.—Required of Juniors. Recitations, discussions, assigned reading, reports and lectures. Text: Walker's Political Economy, (Adv. Course). Four hours a week, first half-year.

Public Finance.—Senior elective. This course treats of taxation, public expenditure, public debts and the budget. Instruction is given mainly by lectures with reading in various systematic treatises and monographs. Text: Bastable's Public Finance. Three hours a week, second half-year.

Money and Banking.—Junior and Senior elective. A historical and theoretical course in money and banking, treating especially the production of the metals, the theory of value, the history of prices, bimetallism, paper money, bank notes, etc. Lectures, recitations, reports and discussions. Texts: White, Money and Banking; Nicholson, Money and Monetary Problems; Dunbar, Theory and History of Banking. Two hours a week, first half-year.

Railroads.—Junior and Senior elective. A course on the history of transportation and its present problems, with especial reference to the relations of the railroads to the State, to the public, and to the employés. Lectures, recitations, etc. Texts: Hadley, Railroad Transportation; Dabney, Public Regulation of Railways. Two hours a week, second half-year.

Socialism.—Junior and Senior elective. A historical and critical course in socialism and socialistic theory. Especial attention is paid to the historical basis of socialism, the French revolution, the idealists, the German scientific socialists, Christian socialists, the State socialism of to-day, and also to the various attempts at socialistic reform such as co-operation, profit-sharing, etc. Lectures and recitations. Texts: Ely, French and German Socialism, and Schaeffle, Quintessence of Socialism. Two hours a week, second half-year.

Sociological Seminary.—Senior elective. Organizations for Promoting Social Welfare; Voluntary Associations; Community Life: Social Institutions of Christianity; Dependents and Defectives: Criminology and Penology; The Settlement Movement: Problems of Municipal Government; Common School Education. One hour a week, second half-year.

POLITICAL SCIENCE.

Three courses are offered in Political Science: first, a historical course showing the broad political features of the various historical forms of government: second, a comparative study of the chief existing governments: third, a brief course in International Law. Notice also the course in Socialism, described in the department of Economics.

Historical Politics.—Junior and Senior elective. This course aims to trace the origin and growth of government from its primitive forms to the establishment of the modern states, studying successively the semi-amorphous horde, gentile society, the ancient city, the Roman Empire, the Germanic folk, the feudal system, the political system of the Church, the Holy Roman Empire, the rise of national states, the development of constitutional and absolute monarchy, the triumph of democracy, etc. The course is conducted mainly by means of lectures supplemented by recitations, reports and extensive outside reading. Text: Wilson's State. Three hours a week, first half-year.

Comparative Politics and Constitutional Law.—Junior and Senior elective. This course is a study and comparison of the governments of the chief modern states. It aims to give an exposition of the constitutional law of the several states and of their actual political organization. The great problems of federalism and centralization, of presidential and responsible ministerial government, and of the guarantees of civil liberty, receive especial consideration. This course is given by means of lectures, recitations and collateral reading. References are made to the principal cases in Thayer's Cases. Text: Wilson's State. Three hours a week, second half-year.

International Law.—Junior and Senior elective. A brief course in the elementary principles of International Law, with especial reference to American problems, such as arbitration, law of neutrality, citizenship, extradition, and to questions of diplomatic policy, such as the Monroe Doctrine. The course is conducted principally by recitations, discussions and reports, with frequent reference to Wharton's Digest, Snow's Cases and the "Treaties and Conventions of the United States." Text: Davis' International Law. One hour a week, first half-year.

HISTORY.

Four courses are offered in history. If the student intends to take both English history and the history of the United States, it is desirable that he should pursue the first before taking up the second. The course in the history of the Middle Ages is continuous with the course in the history of the Renaissance, and, if both are taken, the above named order should be observed. The course in Historical Politics, which is described among the studies in Political Science, is a course in general political and constitutional history.

English History.—Junior and Senior elective. A course in the political history of England from the earliest times to the American War. The course is conducted chiefly by recitations and collateral reading, supplemented by lectures on the constitutional development. Text: Gardiner's Student's History of England. Four hours a week, first half-year.

United States History—Junior and Senior elective. A course in the history of the American colonies and the United States until recent times. This course is conducted by recitations, reading and lectures. Text: The "Epochs of American History" Series. Four hours a week, second half-year.

History of the Middle Ages.—Junior and Senior elective. This is a narrative and descriptive course in the history of the Middle Ages. Special attention is paid to the social, economic, religious and artistic aspects of the period. It is conducted by means of lectures, recitations and extensive collateral reading. Text: Duruy's Middle Ages. Two hours a week, first half-year.

History of the Renaissance.—Junior and Senior elective. This course is conducted in the same manner as the course on the Middle Ages. Two hours a week, second half-year.

Historical courses, amounting to four hours a week for one-half year, must be included by each student in the elective work of Junior or Senior year.

BIBLE STUDY.

One hour a week throughout the year. Open as an elective to Juniors and Seniors. Freshmen and Sophomores, having time to take the work, will be allowed advanced credit on Junior and Senior electives. Academy students will be allowed to enter the class, but will receive no credits.

The following courses are offered, which will be taken in successive years:

I. Introduction to the Books of the New Testament.
II. The Life of Christ (two years).
III. Studies in the Books of Samuel.

In 1897-8 the class will study the second half of Course II.

EXPRESSION AND ORATORY.

The aim of this department is to prepare the student for the proper and fitting expression of the general knowledge acquired in a college education. Special attention will be given to the cultivation of the voice and action, not alone for public speaking, but for the proper expression in every department of life's work—the requirements of business, of legal practice, of teaching, of the lecture platform, of the legislative hall, and of preaching.

Voice and Gesture.—During Freshman and Sophomore years work will be required in voice and gesture. A course of lectures upon these subjects will be given during the first half of Freshman year. Two hours a week, counting as one.

Oratory and Forensics.—During the first half of Sophomore year work will be required to the extent of preparing two orations and the public delivery of one. A course of lectures upon the History of Oratory and Orators will be given. The preparation of briefs, with participation in public debate, will be required. Two hours a week, counting as one. An elective in Oratory will be offered to Seniors, and there will also be an elective in Forensics for Juniors and Seniors.

Extempore Speaking.—An elective in this work will be offered to Juniors and Seniors. No student will be admitted to this course who has not completed the required course in Oratory and Forensics. Two hours a week, counting as one.

Prizes.—The prize contest in declamation is open to members of the Freshman class, and takes place at the close of the second half-year.

A prize of $50 is offered to members of the Apollonian Club for excellence in debate, the contest taking place in March.

An oratorical contest is held each year, open to all members of the College. The winner represents the College in the State Intercollegiate Oratorical Contest.

PHYSICAL TRAINING.

Regular exercise is required of all the students, and the work is adapted to the needs of each.

The gymnasium is a separate building, heated by steam and well fitted with all the necessary modern appliances for the most approved methods of physical exercise. The basement is provided with lavatories containing shower-baths (hot and cold water), lockers and private dressing rooms.

Class drills are held for young men and young women, separately. In addition, students may undertake individual work under the advice of the Director, and may have special hours assigned for this purpose.

Out-door exercise is recommended in the majority of cases, and the sunny climate of Colorado Springs makes it possible for such exercise to be taken with great regularity through almost the entire year. Colorado College possesses one of the few college golf clubs of the country. This popular game is now being recommended by physicians as especially adapted to the needs of those who are unable to participate in more violent exercise, while the beautiful country about Colorado Springs and delightful open winters admit of its being played the year round, and make it very popular. Tennis is also played during the entire season. Several new tennis courts have been laid out upon the College grounds and the facilities are sufficient to accommodate all those who wish to exercise in this way. The College is also represented in base-ball, foot-ball, tennis and field sports in a State intercollegiate league.

An athletic field, admirably fitted both by situation and size for all out-door sports, has been laid out behind the College buildings.

The athletic interests of the College are controlled by an advisory board consisting of two members from the faculty, two from the city, one or two from the alumni, and one representative from each of the College classes. This board advises the students in all their sports, audits the accounts of managers, and raises and authorizes the expenditure of money for various athletic interests.

PRIZES AND HONORS.

College Scholarship Honors of two grades are awarded at Commencement for excellence in the work of the year. The Honor list for 1895–6 was as follows:

HIGH HONORS.

LESTER McLEAN, JR., of Denver, *Class of 1899.*

HONORS.

Class of 1896:

WINONA BAILEY, of Leadville.
HERMAN G. A. BRAUER, of Adelaide, South Australia.

Class of 1897:

Frances J. Bayley, of Denver.

Class of 1898:

Frank K. Bailey, of Leadville.

Class of 1899:

Willard I. Hyatt, of Cherry Creek, N. Y.

Special Student:

Anna Pearl Cooper, of Colorado Springs.

A prize for proficiency in Latin is offered annually for competition among members of the Freshman class. It consists of ten dollars' worth of books. It was awarded in June, 1896, to

Lester McLean, Jr., of Denver.

A prize for proficiency in Greek, consisting of ten dollars' worth of books, is offered annually for competition among members of the Fourth Academy class.

SCHEDULE OF RECITATIONS.

Hour.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
1 8:30	I. Latin. II. Greek. III. Expression. Fr. Latin. Soph. Chemistry (A. B.) [Jun.Political Economy.]	I. Latin. II. English. IV. Mathematics. German B. Soph. Chemistry (A. B.) [Jun.Political Economy.]	I. Latin. II. Algebra. IV. English. Fr. Latin. Soph. Greek. Soph. Chemistry (Ph. B.) [Jun.Political Economy.]	I. Latin. [II. Physiology.] *II. Botany.* III. Expression. IV. Mathematics. Fr. Latin. Soph. Greek. Soph. Chemistry (Ph.B.) [Jun.Political Economy.]	I. Latin. II. Algebra. III. Greek. Fr. Expression. Soph. Chemistry (Ph. B.)
9:20	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.
2 9:45	[I. Roman History.] *I. English History.* II. Latin. III. Latin. Soph. Chemistry (A. B.)* [Soph. Oratory A.] Physics A. Jun. Geology.	I. Expression. II. Latin. III. Latin. IV. Greek. Fr. Mathematics. *Fr. Mechanics.* Soph. Chemistry (A. B.)* Jun. Geology.	[I. Roman History.] *I. English History.* II. Latin. III. Latin. IV. Greek. Fr. Mathematics. Soph. Chemistry(Ph. B.)* [Soph. Oratory B.] Physics A.	I. Expression. II. Latin. III. Latin. IV. Greek. Fr. Mathematics. Soph. Chemistry (Ph.B.)* Jun. Geology.	II. Latin. III. English. Fr. Mathematics. Soph. Greek. Soph.Chemistry (Ph.B.)* Physics A. Jun. Geology. Sen. English.
3 10:35	I. Algebra. IV. Greek. Fr. Biology. Soph. Latin. Soph. Chemistry (Ph.B.) [Soph. Oratory B.] [Mechanical Drawing.]	I. Algebra. II. Greek. IV. Latin. Fr. Biology. [Astronomy.]	I. Algebra. II. Greek. III. Geometry. IV. Latin. German B. Soph. Chemistry (A. B.) [Soph. Oratory A.]	I. Algebra. II. Greek. IV. Latin. Fr. Biology. [Astronomy.]	I. Algebra. II. Greek. III. Geometry. IV. Latin. German B. Sen. English.*

4 11:25	II. English. III. Greek. IV. Physics. Soph. Chemistry (Ph. B.)* Jun. English. [Mechanical Drawing.]*	III. Greek.* Fr. Biology. Soph. Latin. Physics B and C. Sen. English.	III. English. French B. Soph. Chemistry (A. B.) *Physics B.* Jun. English.	III. Greek. German A. Fr. Biology.* Soph. Latin. Physics B. Sen. English.	[II. Government.] *II. Greek History.* French A. Fr. Greek. Soph. Chemistry (A. B.)* Physics C. Jun. English.
5 12:15	[II. Physiology.] *II. Botany.* IV. Latin. French A. Soph. Chemistry (Ph. B.)* [Mechanical Drawing.]*	[II. Government.] *II. Greek History.* III. Geometry. French A. Soph. Greek. Physics B and C.*	III. Greek. German A. Physics C.	III. Chemistry. Physics B.* Fr. Biology.*	III. Latin. IV. Greek. French B. Soph. Chemistry (A. B.)* Physics C.*
6 2:30	I. English. II. Drawing. Fr. Greek. *Soph. Zoology.* Physics A.	I. English. [II. Physiology.] *II. Botany.* III. Chemistry. IV. Physics. Fr. English. Analytical Geometry. [Jun. Logic.] *Jun. Psychology.*	[II. Physiology.] *II. Botany.* III. Chemistry. IV. Physics. Fr. Greek. Analytical Geometry. [Jun. Logic.] *Jun. Psychology.*	I. English. Fr. English. [Analytical Geometry.] *Soph. Zoology.* [Jun. Logic.] *Jun. Psychology.*	I. English. III. Chemistry. [Mech. Drawing.] German A. [Jun. Logic.] *Jun. Psychology.*
7 3:20	II. Drawing.* III. English. Soph. English. Physics A.*	III. Chemistry.* IV. Physics. French B. [Sen. Hist. Philosophy.] *Sen. Ethics.*	III. Chemistry.* IV. Physics.* Fr. Expression. Astronomy. *Soph. Zoology.* [Sen. Hist. Philosophy.] *Sen. Ethics.*	II. English. III. Geometry. *Fr. Mechanics.* French B. [Sen. Hist. Philosophy.] *Sen. Ethics.*	III. Chemistry.* IV. Physics. Fr. Latin. [Mech. Drawing.]* *Soph. English.* Analytical Geometry.
8 4:10	German B. *Fr. Mechanics.*	German A.	Soph. English.	French A. Physics C. Sen. Philosophic Semin.	

[Bracketed titles] are for first half-year only. *Italicized titles* are for the second half-year only. The hours of gymnasium exercise, as well as those of elective studies, are inserted in the schedule at the opening of the academic year. *Continued from the preceding period.

THE CUTLER ACADEMY—FACULTY.

WILLIAM FREDERICK SLOCUM,
President.

NATHAN B. COY,
Principal.

LOUIS A. E. AHLERS,
French and German.

FLORIAN CAJORI,
Physics.

FRANCIS W. CRAGIN,
Botany.

P. E. DOUDNA,
Mathematics.

GEORGE A. H. FRASER,
Latin.

M. CLEMENT GILE,
Greek.

HENRY E. GORDON,
Elocution and Rhetoric.

M. ALICE LAKE,
Physiology and Hygiene.

FRANK H. LOUD,
Mathematics.

ATHERTON NOYES,
English and Greek.

MARION McG. NOYES,
Latin.

EDWARD S. PARSONS,
English.

SOPHIE B. DE PERALTA,
Drawing.

WILLIAM STRIEBY,
Chemistry.

FRANCIS WALKER,
History and Government.

GERALD B. WEBB,
Physiology.

THE CUTLER ACADEMY.

This fitting school, named in honor of one of the most generous and steadfast friends of Colorado College (Henry Cutler, of Massachusetts), provides a thorough preparation for any college in the United States. While the preparatory training is the principal aim, the plan of study is so arranged as to meet the requirements of students who do not propose going on into college work. The course is a thorough one, embracing four years, and the teaching is carefully conducted by experienced instructors, most of whom are also engaged in the work of the College.

Correspondence concerning the Cutler Academy should be addressed to Nathan B. Coy, Principal.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the Cutler Academy are expected to have finished the eighth grammar grade in the public schools, or to have covered an equivalent of the following work:

Arithmetic—Franklin or Wentworth.

English—Reed and Kellogg's Higher Lessons.

History—Montgomery's United States History.

Geography—Any school Geography.

Applicants for admission who have, within six months, been students in the Colorado Springs High School, must present certificates from the High School, showing completion of the work of the grade preparatory to the Academy class which they wish to enter. The High School will, upon payment of a small fee, provide special examinations for this purpose, if the regular examinations were not passed. The Academy will not examine such applicants, except upon subjects which were not included in their High School course.

Candidates for admission in 1897 are expected to present themselves at Palmer Hall on Tuesday, June 8, or Tuesday, September 14, at 9 A. M. Every applicant for admission must bring a satisfactory certificate of good moral character, together with a full written statement of studies pursued elsewhere. Any student whose influence is felt to be injurious to good scholarship or good morals will not be permitted to remain in the Academy.

COURSES OF INSTRUCTION.

CLASSICAL COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book; Viri Romæ	5
	Algebra: Through Fractions	5
	English: Grammar and composition; letter writing; narrations and descriptions; exercises in dictation	4
	Required Supplementary Readings, see p. 67.	
	History: Roman	2
	Expression: Elementary work in voice and gesture	2

SECOND HALF:	*Latin:* First Latin Book completed; Viri Romæ; reading at sight	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: Continued study of composition; Gayley's Classic Myths; reading of poetry and prose; figurative language; versification	4
	Required Supplementary Readings, see p. 67.	
	History: English	2
	Expression: Drill in recitation, and public rhetoricals	2

SECOND YEAR.

FIRST HALF:	*Latin:* Grammar (Allen and Greenough); selections from Cornelius Nepos; Cæsar's Gallic War, Books II-IV; prose composition (Daniell); reading at sight	5
	Greek: Grammar (Goodwin); White's Beginner's Greek Book	5
	English: Genung's Outlines of Rhetoric: choice of words, phraseology, the sentence; constant writing	3
	Required Supplementary Readings, see p. 67.	
	Algebra: Quadratic Equations completed	2
	Government	2

SECOND HALF:	*Latin:* Grammar; Cæsar, Book I; Ovid, Stories from the Metamorphoses; reading at sight; prose composition	5
	Greek: Grammar; Xenophon (Coy's First Greek Reader); reading at sight	5
	English: Genung's Outlines of Rhetoric concluded: the sentence continued, the paragraph, the whole composition; constant writing	3
	Required Supplementary Readings, see p. 67.	
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2

THIRD YEAR.

FIRST HALF:	*Latin:* Grammar; Cicero, Four Orations against Catiline; reading at sight; prose composition (Daniell)	5
	Greek: Xenophon's Anabasis (Goodwin), 2 books; reading at sight; written translations; composition (Collar and Daniell)	5
	Geometry: Two books of Plane Geometry (Beman and Smith)	4
	English: Burke's Speech on Conciliation; Pope's Homer's Iliad, Books I, VI, XXII, XXIV; Dryden's Palamon and Arcite	3
	Required Supplementary Readings, see p. 67.	
	Expression: Advanced work in voice and gesture.	2
SECOND HALF:	*Latin:* Grammar; Cicero, Orations for Archias, for Marcellus, and for the Manilian Law; Vergil, Bucolics; reading at sight; prose composition	5
	Greek: Xenophon's Anabasis, 2 books, or an equivalent; reading at sight; composition	5
	Geometry: Plane Geometry completed	4
	English: Paradise Lost, Books I and II; De Quincey's Flight of a Tartar Tribe; Addison's DeCoverley Papers	3
	Required Supplementary Readings, see p. 67.	
	Expression: Drill in declamation, public rhetoricals	2

FOURTH YEAR.

FIRST HALF:	*Latin:* Grammar; Vergil, Aeneid, Books I–IV; reading at sight; prose composition	5
	Greek: Homer, 1,200 lines; composition; reading at sight	5
	German: Grammar; composition; reading. (See German A, p. 38)	4
	Mathematics: Review and general exercises	2
	English: Tennyson's Princess; Southey's Life of Nelson	1
	Required Supplementary Readings, see p. 67.	

SECOND HALF:	*Latin:* Grammar; Vergil, Aeneid, Books V, VI; reading at sight; prose composition; reviews	5
	Greek: Homer, 1,800 lines; written translations; Mahaffy's Old Greek Life; Jebb's History of Greek Literature; composition	5
	German: Grammar; composition; reading. First half-year's work continued	4
	Mathematics: Review and General Exercises	2
	English: DeQuincey's Flight of a Tartar Tribe; Paradise Lost, Books I and II	1
	Required Supplementary Readings, see p. 67.	

LATIN-SCIENTIFIC COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book; Viri Romæ	5
	Algebra: Through Fractions	5
	English: As in corresponding half-year of Classical Course	4
	History: Roman	2
	Expression: As in corresponding half-year of Classical Course	2
SECOND HALF:	*Latin:* First Latin Book completed; Viri Romæ; reading at sight	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: As in corresponding year and term of Classical Course	4
	History: English	2
	Expression: As in corresponding half-year of Classical Course	2

SECOND YEAR.

FIRST HALF:	*Latin:* Grammar (Allen and Greenough); selections from Cornelius Nepos; Cæsar's Gallic War, Books II-IV; prose composition (Daniell); reading at sight	5
	Physiology: Huxley's Elementary Lessons in Physiology; Martin's Human Body	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Quadratic Equations completed	2
	Government:	2
	Drawing:	1

SECOND HALF:	*Latin:* Grammar; Cæsar, Book I; Ovid, Stories from the Metamorphoses; reading at sight; prose composition	5
	Botany: Gray's Lessons and Coulter's Manual of Rocky Mountain Botany	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2
	Drawing:	1

THIRD YEAR.

FIRST HALF:	*Latin:* Grammar; Cicero, Four Orations against Catiline; reading at sight; prose composition (Daniell)	5
	Chemistry: Williams' Introduction to Chemical Science; laboratory practice	4
	Geometry: Two books of Plane Geometry	4
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2
SECOND HALF:	*Latin:* Grammar; Cicero, Orations for Archias, for Marcellus, and for the Manilian Law; Vergil, Bucolics; reading at sight; prose composition	5
	Chemistry: Work of first half-year continued	4
	Geometry: Plane Geometry completed	4
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2

FOURTH YEAR.

FIRST HALF:	*Latin:* Grammar; Vergil, Aeneid, Books I–IV; reading at sight; prose composition	5
	German: German A (p. 38), as in Classical Course.	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	1
SECOND HALF:	*Latin:* Grammar; Vergil, Aeneid, Books V, VI; reading at sight; prose composition; reviews.	5
	German: First half-year's work continued	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	1

SCIENTIFIC COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book; Viri Romæ	5
	Algebra: Through Fractions	5
	English: As in corresponding half-year of Classical Course	4
	History: Roman	2
	Expression: As in corresponding half-year of Classical Course	2
SECOND HALF:	*Latin:* First Latin Book completed; Viri Romæ; reading at sight	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: As in corresponding half-year of Classical Course	4
	History: English	2
	Expression: As in corresponding half-year of Classical Course	2

SECOND YEAR.

FIRST HALF:	*Latin:* Grammar (Allen and Greenough); selections from Cornelius Nepos; Cæsar's Gallic War, Books II-IV; prose composition (Daniell); reading at sight	5
	Physiology: Huxley's Elementary Lessons in Physiology; Martin's Human Body	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Quadratic Equations completed	2
	Government:	2
	Drawing:	1
SECOND HALF:	*Latin:* Grammar; Cæsar, Book I; Ovid, Stories from the Metamorphoses; reading at sight; prose composition	5
	Botany: As in the Latin-Scientific Course	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2
	Drawing:	1

THIRD YEAR.

First Half:	*German:* Grammar; composition; reading. (See German A, p. 38.)	4
	Chemistry: Williams' Introduction to Chemical Science; laboratory practice	4
	Geometry: Two books of Plane Geometry	4
	Algebra: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	4
Second Half:	*German:* First half-year's work continued	4
	Chemistry: First half-year's work continued	4
	Geometry: Plane Geometry completed	4
	Algebra: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2

FOURTH YEAR.

First Half:	*German:* A course corresponding to German B, p. 38	4
	French: Grammar; composition; reading. (See French A, p. 40.)	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Plane Trigonometry; Solid Geometry	4
	English: As in corresponding half-year of Classical Course	1
Second Half:	*German:* First half-year's work continued	4
	French: First half-year's work continued	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Solid Geometry; Spherical Trigonometry; Advanced Algebra	4
	English: As in corresponding half-year of Classical Course	1

APPENDIX.

REQUIRED SUPPLEMENTARY READINGS FOR ACADEMY ENGLISH CLASSES.

First Academy: Macaulay's Lays of Ancient Rome; Hawthorne's Wonder Book and Tanglewood Tales; Æsop's Fables; Gulliver's Travels; Arabian Nights; Scott's Ivanhoe; Dickens' Oliver Twist; Hughes' Tom Brown at Rugby; Ouida's A Dog from Flanders; Kingsley's Water Babies; Mark Twain's The Prince and the Pauper; Tennyson's Enoch Arden; Lamb's Tales from Shakespeare; Marden's Pushing to the Front.

Second Academy: St. Pierre's Paul and Virginia; Lanier's The Boys' King Arthur; Tennyson's Idylls of the King; Irving's Tales of a Traveller; Scott's Tales of a Grandfather; Dickens' Christmas Carol; Lanier's The Boy's Froissart; Bryant's Iliad; Scott's Talisman; Kingsley's Westward Ho; Martyn's Life of Phillips.

Third Academy: Scott's Marmion and The Lady of the Lake; Lamb's Essays of Elia; Irving's Conquest of Granada; Scott's Quentin Durward and Peveril of the Peak; Bulwer's The Last Days of Pompeii; Plutarch's Lives of Themistocles and Alcibiades; Shumway's A Day in Ancient Rome; Fiske's American Revolution; Personal Memoirs of U. S. Grant; *Addison's De Coverley Papers; Goldsmith's Vicar of Wakefield; Cooper's Last of the Mohicans.*

Fourth Academy: Palmer's Odyssey (or Leaf's Iliad); Matthew Arnold's Sohrab and Rustum; Scott's Guy Mannering and The Heart of Midlothian; Curtis' Prue and I; Saintine's Picciola; Jane Austin's Pride and Prejudice; Percy's Reliques; Marden's Architects of Fate; *Addison's De Coverley Papers; Lowell's Vision of Sir Launfal; Hawthorne's House of Seven Gables.*

NOTE.—Composition work in connection with the books whose titles are italicized.

LATIN PRONUNCIATION.

The Roman system of pronouncing Latin is used in both Academy and College.

PREPARATION FOR OTHER COLLEGES.

A student who is preparing in Cutler Academy for some other college than Colorado College, where the requirements for admission differ in some particulars, may, by timely application to the instructors, secure such modification of his course as will meet the necessities of his case.

COLORADO COLLEGE CONSERVATORY OF MUSIC.

FACULTY.

RUBIN GOLDMARK,
Director of the Conservatory of Music and Instructor in Harmony, Counterpoint and Composition.

CLARENCE W. BOWERS,
Instructor in Piano-forte and Organ.

CHARLES DOPF,
Instructor in Violin.

OMA FIELDS,
Instructor in Piano-forte.

FREDERIC HOWARD,
Instructor in Voice Culture.

FANNY AIKEN TUCKER,
Instructor in Voice Culture.

COLORADO COLLEGE CONSERVATORY OF MUSIC.

PURPOSE AND SCOPE.

The Conservatory of Music was established by the Trustees of Colorado College in the fall of 1894, with a view of affording a thorough education and superior advantages in all the higher musical branches.

While this movement had long been contemplated, the Trustees and Faculty were unwilling to undertake its organization until convinced that the same high standards in courses and instruction upheld in the College would be maintained in the Conservatory.

Necessity of the Conservatory.—The student of to-day in search of a better musical education is frequently at a loss whither to turn for instruction. There is certainly no lack of teachers, but the absence of system and of well-established standards that can serve as guides to the student often occasions considerable loss of time in experimenting, until suitable instruction is obtained. It is safe to assert that in no other branch are so many years wasted in unlearning that which has been badly acquired as in the study of music. By modeling its Conservatory after the best European and Eastern institutions, Colorado College aims primarily at thoroughness of instruction and the maintenance of artistic ideals.

The Object of a Conservatory.—The object of a Conservatory is not to turn out pianists, organists, violinists, or singers. Its chief function is, while enabling the student to acquire technical proficiency in any desired branch of the art, at the same time to mould him into a *musician*. This can be accomplished only by the conservatory. Here the students of the various departments are drawn closely together in the exercise of their art. Co-ordinate branches, into which the private student can with difficulty gain an insight, are opened to view, a musical atmosphere is created, the horizon is widened, and the student unconsciously absorbs much that must prove of inestimable value in his own specialty.

Necessity of Theoretical Study.—The study of *Musical Theory*, for a long time so strangely neglected by the great majority of instrumentalists and vocalists, is of prime importance to every musician. The more he knows of Harmony, Counterpoint, Composition and the general History of Music, the more will his musical culture increase, his artistic view be broadened, his appreciation of the classic works of our great masters be deepened, and the more will he be able to impart to others the fundamental principles whereon musical progress is based.

Theory and Practice Combined.—While laying especial stress on its theoretical department, the Conservatory also provides for a course of illustrated lectures on general musical subjects and a series of recitals and concerts during each year, thus furnishing the student an opportunity of viewing in practice what he has learned in theory.

Importance of Following Up Other Educational Branches.—Nor can the musician of the present day afford to neglect his general education. Literary and artistic accomplishments should go hand in hand. Languages, æsthetics and belles lettres are of importance to the serious musician. On this account it is especially fortunate that the Conservatory stands in such intimate relation to the College, and that the pupils may avail themselves of its varied privileges. The Director of the Conservatory, or members of the College faculty, will gladly confer with any student and assist him in determining what courses of study he may advantageously pursue.

RELATION OF THE CONSERVATORY TO COLORADO COLLEGE.

This Department is under the same general supervision as the other departments of Colorado College, and under the immediate management of the Director and Faculty of Music. The general rules of the College apply to students of music also.

For those students of the Conservatory who desire to make use of the collegiate department, the fee for one study in the College is fixed at ten dollars a term, or twenty dollars a year, a twenty per cent. reduction from the usual charge. For two or more studies, the regular tuition of seventeen dollars and a half a term, or thirty-five dollars a year, will be charged.

COURSES OF STUDY.

The following courses of study are offered: Piano, violin, organ, voice culture, harmony, counterpoint and composition, in addition to the special advantages to be enumerated further on. Instruction on the other instruments will be provided as soon as a sufficient demand is evident.

CLASS OR PRIVATE INSTRUCTION.

The student is offered a choice between class and private instruction. While there is a general tendency at present to prefer private lessons, attention is called to the marked advantages that result from class instruction. In the former case, the pupil has the entire attention of the instructor for the time of the lesson—one-half hour. In the latter, an hour is divided among three pupils. Thus, while the time of actual instruction is ten minutes less for each individual, all the pupils remain in the class the full hour; in this manner they learn as much by listening to their classmates as when receiving instruction themselves. The greater knowledge of musical literature thus obtained is not to be underrated. For those who intend to adopt teaching as a vocation, it is most important to profit by the mistakes of others. The system of class instruction is in vogue in all European, and in most of our Eastern, conservatories.

I. Piano-Forte.—In this, as in all other departments, the instruction is adapted to the individual needs of each pupil.

The course is divided into three grades, *Elementary*, *Intermediate* and *Advanced.*

In the *Elementary* grade the student is taught to read music, to play scales and arpeggios, studies by Koehler, Heller, and the first books of Czerny's School of Velocity, sonatinas by Clementi and Dussek, and sonatas by Haydn and Mozart.

In the *Intermediate* grades the pupil is expected to master all the scales in double-thirds and double-sixths, Bach's Two-Part Inventions, and the French Suites, Etudes of Cramer, Clementi's Gradus ad Parnassum, Moscheles, op. 70, the earlier sonatas of Beethoven, selections from Mendelssohn and Schumann, and the less difficult works of modern composers.

The *Advanced* grade will study Bach's Well-Tempered Clavichord and the English Suites, Kullak's Octave-School, Tausig's Daily Studies, Etudes of Chopin, Schumann, Henselt, Rubinstein and Liszt, the piano concertos of Beethoven, Schumann, Chopin, Liszt, Grieg, Brahms and Tschaikowsky, as well as those works that constitute the repertory of the modern pianist.

Attention is also devoted in this course to sight-reading, accompaniment and ensemble-playing.

II. Voice Culture and Singing.—Especial attention is given in this course to a correct management of the breath, the posing and preservation of the voice, artistic phrasing, and the development of a refined musical taste.

This course is divided into four grades: *Elementary*, *Intermediate*, *Junior*, and *Advanced*, and will cover the following work:

Elementary—Lessons in breathing; attack; simple tones; short intervals; slow trills; Behnke and Pearce's Exercises; easy songs.

Intermediate—Intervals; portamento; arpeggios; short scales; messa di voce; phrasing; Nava, Book I.; Concone or Sieber exercises; songs and sacred music.

Junior—Development of voice; scales; phrasing; Nava, Book II.; Concone or Luetgen exercises; Italian and German songs; oratorio.

Advanced Scales; embellishments; further development of voice; Marchesi and Luetgen exercises; oratorio and opera; extended study of songs.

III. ORGAN.—It is required of pupils admitted to this course that they shall have first studied the piano for at least one year.

The *Elementary* grade is devoted to exercises in pedal playing, first studies in pedal obligato, hymn-tune playing, and elementary registration.

The *Middle* grade embraces an extended study of registration through the medium of pieces especially adapted for use as preludes and postludes in church service, including studies and pieces of the polyphonic type as represented by Bach and Rink, and the practice of quartette and chorus accompaniment.

The *Advanced* grade is devoted to the study of organ solo, including Bach's Preludes and Fugues, works in sonata form by Mendelssohn and others, modern works in free form, and lessons in improvisation and transposition.

IV. HARMONY.—This course includes the study of the various chords, their structure, relations and progressions, the working out of figured basses, the harmonization of choral-melodies, and modulation. All the principles are taken down by the students from demonstration in the class-room. Richter's Harmony is used as a work of reference.

V. COUNTERPOINT.—This subject can be taken only by those who have satisfactorily completed the study of Harmony.

Simple and double Counterpoint for two, three and four voices, imitations, canons, three and four part vocal and instrumental fugues. No text-book is used.

Harmony and Counterpoint have been placed on the list of elective studies in the regular College courses.

VI. COMPOSITION.—This subject is divided into two courses of one year each. A thorough knowledge of Harmony and Counterpoint is necessary for admission.

Part I. The construction of phrases and periods; the simpler instrumental forms; the scherzo, rondo, adagio, variations, and the sonata-form. The student does practical work in all these departments of Composition; the work is criticized in detail in the class-room. Especial attention is devoted to the analysis of the classic master works.

Part II. Instrumentation; the nature and characteristics of all the orchestral instruments, and their application in symphonic writing; the larger vocal and instrumental forms; the string quartette and various branches of chamber music; continuation of analysis and reading from score.

FREE ADVANTAGES.

Choral Society.—All the students of the Conservatory are admitted free of expense to the Colorado Springs Choral Society, which meets once a week under the leadership of the Director of the Conservatory, and gives two public concerts during the year. The enthusiasm with which the students have entered into this work is one indication of the great development of the musical spirit in the College and the Academy during the past year.

Sight-Reading Class.—A class in solfeggio and singing at sight is organized at the beginning of each year, and is free to all students of the Conservatory.

Special Lectures and Concerts.—All lectures and concerts given under the auspices of the Conservatory are free to students of music. A successful concert was given in November by the Faculty of the Conservatory at the First Congregational church. The following lectures were given during the past winter by Mr. Rubin Goldmark:

1. The Nibelung Tetralogy—Rhinegold.
2. The Nibelung Tetralogy—The Valkyrie.
3. The Nibelung Tetralogy—Siegfried.
4. The Nibelung Tetralogy—The Dusk of the Gods.
5. Wagner—Die Meistersinger.

It is the intention of the Faculty to make such lectures a feature of the department, thus stimulating a general interest in music by bringing various musical topics under discussion.

SPECIAL FEATURES.

The healthful surroundings and unexcelled climate of Colorado Springs, the quiet and seclusion that can so easily be obtained when desirable, are especial advantages to the music student. In many cases the study of music is a severe tax on the strength of the conscientious pupil. Here he can pursue musical and other studies, while at the same time gaining health and strength.

The student has access to the courses in Physical Training in the College, free of cost.

The College Library, of upwards of 20,000 volumes, is open to students of music on the same terms as to students of all other departments—three dollars a year.

EXPENSES—TUITION.

By the term of four months (coinciding with the College half-year), payable in advance; two lessons a week.

CLASS LESSONS, ONE HOUR LONG.

Piano-forte, violin, voice, organ, each	$25 00
Harmony	12 00
Counterpoint	18 00
Composition,	22 50

PRIVATE HALF-HOUR LESSONS.

Piano-forte, violin, voice, organ, each	$35 00

ROOMS AND BOARD.

Montgomery Hall, Tillotson Hall, and Hagerman Hall, the homes of College and Academy students, will be open to students of music at the same rates as to others.

Montgomery Hall (for young women), including board and room, light and heat, by the week, $6.

Tillotson Hall (for young women), including board, room, light and heat, by the week, about $3.50.

Hagerman Hall (for young men), rooms, with light and heat, by the week, $1 to $2.

A students' club has been organized at Hagerman Hall, where young men can board at about $2.50 a week. Any student may board at Montgomery Hall at $4 a week.

OTHER EXPENSES.

Library Fee (if Library is used), by the year	$3 00
Rent of Piano, one hour each day, by the term	3 00
Rent of Piano, two hours each day, by the term	5 00
Rent of Piano, each additional hour, by the term	2 00
Rent of two-manual organ, one hour each day, by the term	10 00

Students will be accepted only on payment of a full term's tuition. No deduction will be made for absence from lessons, except on account of prolonged illness.

DEPARTMENT OF ART.

The relation of this department to the general work of Colorado College is in the main similar to that of the Conservatory of Music. It is under the charge of a Director.

It is the object of this department to give a thorough course in Drawing and Painting, from the simplest geometrical forms to the higher branches of Figure and Landscape Painting, and also to give a general idea of what has been done in Art from the time of the Old Masters to the present day.

COURSES OF STUDY.

FIRST YEAR.

Geometrical drawings — drawing in charcoal from geometrical solids, in outline and in light and shade. Drawing from scroll cast—fruit and ornament. Outdoor work in black and white—pencil and charcoal. Reading: Modern Painters.

SECOND YEAR.

Drawing in charcoal from cast of heads and torse. Drawing from still life in pen and ink. Conventionalizing of plant forms for designs. Outdoor work in black and white—pen and ink, pencil and charcoal. Reading: Modern Painters and Schools.

THIRD YEAR.

Drawing from model—heads. Painting from still life in water color and oils. Applied designs—book covers, posters, wall paper, etc. Reading: The Old Masters.

FOURTH YEAR.

Painting from still life in water color and oils. Painting from draped model in water color and oils. Outdoor work in pen and ink, water color and oils. Reading: Schools of Art from the Old Masters to the present day.

LECTURES.

First Year—Historical Ornament and Applied Perspective.
Second Year—Composition and Applied Design.
Third Year—Technique.
Fourth Year—Color.

In the first year of the above course of study, one lesson a week is required of students of the Academy (see pages 63, 64, 65, second year of the Latin-Scientific and Scientific Courses). Such students pay only the ordinary Academy tuition fee.

Further information in regard to fees, or other matters pertaining to the Department, may be had of the President of the College, or of the Director, Mrs. S. B. de Peralta.

CIRCULAR OF INFORMATION.

LOCATION.

Colorado College is fortunate in its environment. The city of Colorado Springs, the county seat of El Paso county, and the third largest municipality of the commonwealth, is somewhat remarkable for its history and character, and is admirably adapted to be the seat of a college. Founded in 1871, under the direction of men of shrewd foresight and broad views, it has maintained from the beginning a healthy character of morality and culture. Saloons and the attendant destructive influences are absent. Radiating railroad systems, and the recent development of neighboring gold fields have fostered its wealth. While for its first inhabitants it was indebted largely to Pennsylvania and the more northern Atlantic States, as well as to England, its present population of more than twenty thousand is drawn from all sections of the country, and to some extent from foreign lands. It attracts yearly numerous visitors, both pleasure-seekers and health-seekers, but the invalids are so far outnumbered that the place has none of the depressing influence so often observed at noted health resorts. It is fully supplied with the conveniences of city life, yet the lover of nature might seek far before finding a spot more favored. The mountains are close at hand and their serrated line occupies about one-third of the horizon. In the center of the range, and at an air-line distance of less than a dozen miles, stands the renowned mountain, Pike's Peak. Its summit is reached by a cog-railway, as well as by bridle-paths and an excellent carriage road. About its base are numerous cañons, and in one of these, around a celebrated group of mineral springs, has grown up the city of Manitou. The climate of Colorado Springs has attained a world-wide reputation. Its curative qualities consist largely in the opportunity for outdoor exercise, afforded by the great number of fine days; the dryness and rarity of the air adds a quality exhilarating to all and regarded as a specific in cases of malarial disease, asthma, and incipient phthisis. Students unable to work in other climates may here continue their studies, while at the same time making a permanent gain in health. This plan has been successfully carried out in numerous instances.

COLLEGE BUILDINGS.

On a tract of land, including about fifty acres, which, by reason of the growth of the city, has come to have a nearly central location, are situated all but one of the College buildings. The exception is expected to be merely temporary, and it arises from the fact that the trustees have been compelled by the rapid growth of the College in numbers to lease a dwelling, now called Tillotson Hall, for the accommodation of some of the young women. The most important of the buildings are the following:

Palmer Hall, the oldest building on the campus, was first occupied in 1880. It contains, in addition to lecture-rooms, the Chemical, Physical and Biological Laboratories, the Society Hall (used for the meetings of students' societies), and the Museum, a description of which may be found on page 83.

The Library, given in 1894 by the late Mr. N. P. Coburn, of Newton, Mass., and erected at a cost of $50,000, is an edifice of great architectural beauty, and admirably adapted to its purpose. It is of the "Peach Blow" sandstone of Colorado, and is roofed with red tile and copper mountings. The interior, with its ceiling twenty-six feet high, its red oak woodwork, its picturesque galleries, its inviting alcoves, its great stone fireplaces, is exceedingly attractive. Long arched windows, commanding views of the mountains and plains extend from floor to ceiling. A full sized cast of the "Winged Victory" of Samothrace stands at one end of the main hall. It was given, in memory of the Rev. Daniel P. Noyes and Helen McGregor Noyes, his wife, by their three children, Miss M. McG. Noyes and Mr. Atherton Noyes (both members of the College faculty), and Mr. Edward P. Noyes, of Boston. In one of the recesses is a fine marble bust of Antinous, presented by Mrs. H. L. Ballou. A large case containing Mr. A. L. Dickerman's collection of rare and valuable Indian curiosities adds to the interest of the room. The well-lighted basement, designed to serve ultimately as a stack room, is at present furnished with pews of natural oak, and is used as the College Chapel.

THE PRESIDENT'S RESIDENCE, at the northern boundary of the campus, is a commodious building, purchased by the Trustees in 1888.

THE ASTRONOMICAL OBSERVATORY is the gift of Henry R. Wolcott, Esq., of Denver, and was completed in June, 1894. On the lower floor is a well-appointed lecture-room, with an adjoining study, and two smaller rooms designed respectively as a transit-room and photographic dark-room. Upstairs is the dome-room, containing the equatorial telescope, supported on a stone pier. The flat roof is an excellent place for naked-eye observation of the heavens.

THE GYMNASIUM, built by the students of the College in 1891, contains an excellent assortment of apparatus. See "Physical Training," p. 53.

COLLEGE RESIDENCES.

HAGERMAN HALL is a substantial stone building, built in 1889, and used as a residence for young men. Beside the students' rooms, which are all well lighted and attractive, it contains a dining-room which can accommodate a hundred and fifty persons, as well as the Y. M. C. A. reading room, where are many daily and weekly papers and magazines. In the upper story is the "Weather Bureau" office (see p. 83), while the lowest floor affords at present a lodgment to the studio in which the instruction of the Art Department finds its center. The dining-room is now used by a young men's boarding club.

MONTGOMERY HALL was erected and furnished in 1891 by the Woman's Educational Society, and presented free of debt to the College. It provides a comfortable and attractive home for twenty-six young women, and is equipped with all modern appliances for their convenience. Board and rooms are furnished at low prices.

TILLOTSON HALL, unlike the foregoing buildings, is not situated on the tract owned by the College, but is a city dwelling-house, leased during the present year for use by young women as a Students' Club House. It furnishes to students who are desirous of economizing an opportunity to regulate their own expenses for board, and to reduce them to a minimum. Like Hagerman and Montgomery Halls, it is in charge of a matron.

All of the foregoing buildings, except Tillotson Hall and the Gymnasium, are of stone. Those of them which are situated upon the campus are warmed by steam from a central plant, and lighted by electricity.

LIBRARY.

The beautiful new building in which the Library of the College is housed, has been elsewhere described (p. 78).

The number of volumes on the Library shelves amounts to upwards of twenty thousand, with more than five thousand pamphlets in addition, not including unbound periodicals. The leading literary and scientific journals are regularly received, as are also the United States government publications and those of the State of Colorado. About six hundred government publications have recently been added, practically completing the more important sets, especially between the years 1852 and 1867.

The Medical Alcove was originated two years ago by the generosity of the late Dr. B. F. D. Adams, of Colorado Springs, who presented to the College his extensive medical library. The El Paso Medical Society maintains the efficiency of this department by contributing the transactions of Medical Societies and other standard works purchased out of the funds of the Society for the use of its members. During the last year, moreover, the collection of works on medicine was much enriched by the gift of two hundred and fifty volumes and three hundred pamphlets from Dr. E. C. Kimball, of Colorado Springs.

With the commencement of the year 1896, a new departure in the Library management was inaugurated. The control of the Library was vested in a Board of twenty-five members, composed partly of members of the Faculty and Board of Trustees, and partly of ladies and gentlemen not connected with the College. Simultaneously with the creation of this Board, the Library was opened as a circulating library to residents of Colorado Springs and vicinity. In the absence of anything like an adequate public or subscription library in the town, it was thought that the educational advantages, afforded by access to the best books in literature, history and science, might be extended to all citizens of Colorado Springs, without detriment to the interests of the students and professors of the College.

Access to the shelves is permitted, and all the privileges of the Library, including the use of all the current magazines and periodicals taken by the College, are open to the public on payment of the same small fee required of College students. The Library is open from 8:30 A. M. until 6 P. M.

Donations of books and pamphlets have this year been received from a number of citizens of Colorado Springs, among others from Rev. Benj. Brewster, Mrs. Geo. W. Ely, Mrs. E. C. F. Krauss, Mr. W. A. Platt, Miss A. R. Bell, Mr. P. L. Gillett, Miss S. E. Crowell, Judge Horace G. Lunt, Mrs. Dr. Reed, Miss Noyes, Mr. C. W. Haines, Mrs. Sparhawk, and also from the El Paso Club and the Denver Public Library. A committee of the Board of Control has recently undertaken to raise by subscription, in the city, a modest amount to be devoted to the purchase of newly issued books. The committee has met with encouraging success, and has already added to the Library as the first installment of its purchase, a number of valuable works representing the latest achievement in several lines of thought and investigation.

The ready response of the people of Colorado Springs to the Librarian's request for back numbers of magazines to complete files has been especially gratifying. The complete list of donors to the Library during the year is too long to be reproduced here.

READING ROOMS.

In connection with the Library is a Reading Room for the use of students and friends of the College, where the current magazines of literature and science, as well as a number of leading newspapers, may be consulted. The Young Men's Christian Association of the College has also a similar room in Hagerman Hall.

LABORATORIES AND APPARATUS.

The Laboratories of the College supply the means for thorough and practical training in the scientific branches of the curriculum.

A good telescope of four inches aperture, equatorially mounted on a tripod, was presented to the College in September, 1892, by Henry R. Wolcott, Esq., of Denver. This has since been transferred to the Observatory, built by the generosity of the same donor, and has been placed on a pier, and provided with a driving-clock. A new observing chair adds to the convenience with which the instrument is used.

A Meteorological Observing Station is maintained by the College, and daily records are made and reported to the officers of the United States Weather Bureau. The instruments now in use are dry and wet bulb thermometers, a maximum and a minimum thermometer, a Richards thermograph, a mercurial barometer, a self-registering anemometer, an anemoscope, and a rain and snow gauge.

A fine stereopticon, operated by the calcium light, and available for use by all departments of instruction in presenting such topics as are suitable for pictorial illustration, with about six hundred selected photographic views, covering many subjects, is owned by the College.

MUSEUM.

The condition of the Museum has been much improved by the increased space rendered available through the transfer of chapel and other public exercises to the Coburn Library, by the enlarged facilities for display of collections in new exhibition cases, and by various donations and loan collections that have been received.

DONATIONS.

By far the largest and most important contribution that has been made to the Museum during the past year is a gift from General William J. Palmer and the Colorado Springs Company, who have purchased and donated to the College the large paleontological collection that formerly constituted the private cabinet of Professor Cragin, thus permanently securing to the institution some eight thousand specimens from Colorado, Kansas, Indian Territory, Oklahoma, Texas, and other Western and some Eastern States. The collection contains some mineral and zoological specimens, but is chiefly valuable for the extent and importance of its paleontological material, which includes remains of Pliocene horses and llamas, Miocene rhinoceroses and mastodons, Cretaceous saurians, Tertiary fishes, and a large series of shells, echinoderms, and other invertebrates from the lower Cretaceous, besides many other interesting specimens. This collection is of especial scientific importance, not only as supplying a large part of the geological record not otherwise represented in the Museum, but also as being the elaborated result of years of research and as containing the *types* of many new species and some new genera of fossils, both invertebrate and vertebrate. Among these type-fossils, the most important is the large plesiosaurian reptile, *Trinacromerum*, the type of a new genus and species discovered in the Cretaceous rocks of Kansas, described by Professor Cragin in the *American Geologist* in 1888, and now of frequent mention in paleontological literature.

The College feels that it is impossible to express too strongly its appreciation of the value of this gift, or to commend too highly the insight into the need and opportunity of Science in the West, displayed in this practical recognition of the claims of West-American geology by these generous friends of the College, and especially by General Palmer, who took the initiative by offering to contribute half of the cost personally. The Department of Geology is frequently in receipt of communications from scientific investigators, asking for the temporary use of parts of this collection, and two such requests have been received within the last month, one from Professor Alpheus Hyatt, Custodian of the Boston Society of Natural History, and one from Mr. T. W. Stanton, Paleontologist for Mesozoic Geology in the United States National Museum, in aid of researches which these gentlemen are conducting for the United States Geological Survey. The College is thus already becoming recognized as a source of information on the great geological and evolutional problems of the West, and its position as a center of such information will become more important in proportion as the foundations of its Museum are strengthened by such gifts and by endowment for museum-building and research.

For a fine suite of rocks of the Cripple Creek mining district, the Museum is indebted to the well-known mining geologist, Professor George H. Stone. He has spared no pains to make this collection representative of the district as a whole; and the suite, which is displayed in a case devoted exclusively to it, will be especially appreciated by all who are interested in the great gold camp, and by those who wish to add to their knowledge of local scientific matters. It includes rhyolites, trachytes, andesites, phonolites, basalts, diorites, volcanic tuffs, breccias and conglomerates, ores, vein-stuffs, etc., altogether 140 hand-trimmed specimens.

The College makes grateful acknowledgment also of the following donations:

From Hon. L. Bradford Prince, Ex-Governor of New Mexico—A collection of Pueblo Indian implements, including two broken "Mano" stones from ruins of pueblos destroyed about 1685, four stone hammers, five stone axes, two smoothers, two arrow-polishers.

From Mr. Robert W. Goodell—A number of Cretaceous mollusks and echinoderms from Texas.

From Mr. Walter L. Wilder—A fine slab of Carboniferous serpulas from Colorado.

From Messrs. William Wells and S. C. Patterson—The skeleton of a cougar obtained near Meeker, Colorado; presented through the kind offices of Mr. Chas. E. Noble.

From Mr. H. H. Emrich—A stuffed specimen of the young, or "chicken-hawk," stage of the American goshawk, *Astur atricapillus*; a specimen of *Heteroceras cochleatum* (?) from Ft. Pierre shales east of Pueblo; and specimens of *Anomia subquadrata* from the Benton sandstone southwest of Pueblo.

From Mr. William McCoy—A mounted Pelican.

From Mr. G. W. Hammond—An assortment of the curious claystone concretions of New Hampshire, etc.

The collection made by Tillotson Academy at Trinidad, which became the property of the College upon the union of the former with Cutler Academy, includes some zoological, ethnological, and archæological, as well as numerous geological, specimens.

The College still has the use of the following

LOAN COLLECTIONS.

Deposited by Mr. A. L. Dickerman—(1) A large collection of wearing apparel, ornaments, weapons, implements, etc., of various tribes of North American Indians; (2) a collection illustrating Alaskan Indian handiwork. Both of these collections contain many rare and unique specimens.

Deposited by Mr. J. Devin—(1) A collection of minerals; (2) one of Japanese art; also (3) some miscellaneous specimens. The first of these collections, besides including some fine minerals, is especially rich in agates, and includes a fine suite of specimens from the famous petrified forest, "Chalcedony Park," on Lithodendron creek, near Holbrook, Arizona. The Japanese collection contains some very valuable articles.

The rapid growth of the collections emphasizes the increasing necessity for a building in which to utilize them properly. The present Museum is already full, and besides separate and commodious museum rooms for zoology, geology, ethnology and archæology, a number of smaller rooms are needed for laboratory work in geology, paleontology, mineralogy, lithology, zoology, physiology and botany. A building for these and other scientific purposes is vital to the development of the work of the institution.

COLORADO COLLEGE SCIENTIFIC SOCIETY.

The Colorado College Scientific Society holds monthly meetings in the College Chapel. The objects of the society are: "The discussion of recent scientific results, the promotion among its members of scientific inquiry and investigation, and the publication of the more important papers read at the meetings." It was organized in January, 1890, and has already done some excellent work. Six annual publications, entitled "Colorado College Studies," have been issued, and a considerable number of exchanges from associations of a like nature, including some foreign societies, have been secured. The attention which the "Studies" have received from scientific men everywhere encourages the society to continue this publication. The list of articles hitherto published is as follows:

VOLUME FIRST.

A Rigorous Elementary Proof of the Binomial Theorem.—*F. H. Loud.*

On Certain Cubic Curves.—*F. H. Loud.*

A Study of the Inductive Theories of Bacon, Whewell and Mill.—*Benj. Ives Gilman.*

A Mathematical Text-Book of the Last Century.—*F. Cajori.*

Horace, Od. III, 1, 34.—*George L. Hendrickson.*

Quenti Ciceronis Commentariolum Petitionis XI, §43, (B. et K. vol. IX, p. 487).—*George L. Hendrickson.*

VOLUME SECOND.

Witchcraft Among the Hindus.—*Dr. H. W. Magoun.*

Protection for Congressional Minorities.—*W. M. Hall.*

Pulsations in the Aortic Arches of the Earthworm.—*Miss M. R. Mann.*

Dialectic Studies in West Virginia.—*Dr. Sylvester Primer.*

The Study of Diophantine Analysis in the United States.—*F. Cajori.*

The Elliptical Functions Defined Independently of the Calculus.—*F. H. Loud.*

On Two Passages in the Crito.—*Dr. H. W. Magoun.*

Calibration of Burettes.—*D. J. Carnegie.*

On a Passage in the Frogs.—*Dr. H. W. Magoun.*

Note on the Hadley-Allen Grammar.—*Dr. H. W. Magoun.*

Historical Note on the Differentiation of a Logarithm.—*F. Cajori.*

A Mathematical Error in the Century Dictionary.—*F. Cajori.*

VOLUME THIRD.

The Etymologies in the Servian Commentary to Vergil.—*Dr. W. P. Mustard.*

Notes on Jefferson's Draft of the Ordinance of 1784.—*W. M. Hall.*

Some Notes on Blaydes' Nubes.—*Dr. A. T. Murray.*

On a Passage in Euripides' Iphigenia Taurica.—*Dr. A. T. Murray.*

Draper's Barograph.—*Florian Cajori.*

The Conditional in German.—*Dr. S. Primer.*

VOLUME FOURTH.

The Circular Locus.—*F. H. Loud.*

On the Eight Lines Usually Prefixed to Horat. Serm. I, 10.—*Dr. W. P. Mustard.*

State Bank Notes.—*W. M. Hall.*

VOLUME FIFTH.

The Ethical Problem of the Public School System.—*W. F. Slocum.*

The Origin and Use of the Natural Gas at Manitou, Colorado.—*Wm. Strieby.*

Vertebrata from the Neocomian of Kansas.—*F. W. Cragin.*

The Choctaw and Grayson Terranes of the Arietina.—*F. W. Cragin.*

Descriptions of Invertebrate Fossils from the Comanche Series of Texas, Indian Territory and Kansas.—*F. W. Cragin.*

Herpetological Notes from Kansas and Texas.—*F. W. Cragin.*

VOLUME SIXTH.

The Permian System in Kansas.—*F. W. Cragin.*

On the Stratigraphy of the Platte Series, or Upper Cretaceous of the Plains.—*F. W. Cragin.*

Preliminary Notice of Three Late Neocene Terranes of Kansas.—*F. W. Cragin.*

The subjects of papers from January to May, 1897, are as follows:

1. By F. Cajori, Ph. D., "The Electro-Magnetic Theory of Dispersion."

2. By C. F. Gardiner, M. D., "Sanitary Conditions of Colorado Springs."

3. By Mr. V. Falkenau, "Modern Methods of Making Foundations for Large Buildings."

4. By Pres. W. F. Slocum, "The Ethical Element in Manual Training."

5. By Prof. E. S. Parsons, "The Testimony of Modern English Poets to the Reality of Faith."

Students are encouraged to attend the meetings of the society.

The secretary of the society, to whom all correspondence, exchanges, etc., should be addressed, is Professor Florian Cajori.

UNIVERSITY EXTENSION LECTURES.

University Extension work at Colorado College was inaugurated in March, 1894, by the organization of classes in special subjects for the benefit of those not wishing to undertake regular college work.

Extended courses were given in Geology by the late Professor Surls, and in the Duties and Privileges of Citizenship by the late Professor Hall; while popular lectures on philosophical and scientific subjects were delivered by President Slocum and by Professors Cajori, Cragin and Strieby.

During the succeeding College year, October to December, 1894, the following courses were delivered:

A Study of Four Religions.—*President Slocum.*

Early English Life and Literature.—*Professor E. S. Parsons.*

An Introductory Course in Psychology.—*Miss Noyes.*

Talks on Astronomical Subjects, with Illustrations by the Telescope.—*Professor F. H. Loud.*

In 1895–6, by the courtesy of the School Board, and with the hearty coöperation of Superintendent Pattison and Professor Turnbull, most of the lectures were delivered in the High School Building. They were opened by Professor Parsons' course in Early English Life and Literature, repeated by request. Professor Ahlers gave four lectures, three upon Faust, and one upon Modern French Novelists; other popular lectures were delivered by Professors Strieby, Cajori, Langton, Fraser and Walker. The total number was eighteen.

During the past six months, with the same friendly coöperation of the public school officials which made the 1895–6 course a success, the lectures have again been given in the High School Building. The full list is as follows:

Six lectures on German Life and Letters, by Professor Louis A. E. Ahlers:

December 3—Germanic Life and Legends.

December 10—The Heroic Age: Nibelungenlied. Gudrun.

December 17—The Chivalric Age: Hartmann von Aue, Gottfried von Strassburg.

January 12, 1897—The Chivalric Age continued: Wolfram's Parzival. Walther von der Vogelweide.

January 26—The Renaissance and the Humanists.

February 2—The Reformation: Martin Luther. Hans Sachs.

Six lectures on the Norman Conquest, by Professor Edward S. Parsons:

February 9—The Remote Preparation for the Conquest.

February 16—The Direct Preparation for the Conquest. I.

March 2—The Direct Preparation for the Conquest. II.

March 9—The Conquest Itself. I.

March 16—The Conquest Itself. II.

March 23—The Results of the Conquest.

Six lectures on Socialism, by Dr. Francis Walker:

March 30—The French Revolution and Ideal Socialism: Rousseau, Baboeuf, St. Simon, etc.

April 6—Industrial Revolution and Practical Socialism; Robert Owen and Coöperation; Louis Blanc and State Workshops.

April 13—Scientific Socialism: Theory: Rodbertus, Karl Marx.

April 27—Scientific Socialism in Practical Politics: International, Lassalle and Social Democracy.

May 4—Christian Socialists: The English Christian Socialism: Catholic Socialism.

May 11—Modern State Socialism: Germany and Bismarck

Professor Parsons closes the course with a lecture on the Arthurian Legend.

RELIGIOUS LIFE.

As was stated in the introduction to the Bulletin, it has been the aim of the College authorities, since the beginning, to build up in Colorado Springs a distinctively Christian College; one which, while maintaining the best standards of intellectual work, will recognize Christian character as the highest possible attainment and the religious spirit as the most potent inspirer of mind and soul alike. This result has been sought in no sectarian spirit. Sectarianism has from the outset been entirely absent. No student is ever influenced in any way, even the slightest, toward any particular denomination. When the students come to the College, inquiry is at once made as to their denominational affiliations and what churches in the city they desire to attend, and lists are sent out to the pastors of these churches and the request made that they seek the students out and bring at once about them the influence of the church home. The students are received into the city churches, and in a very short time are found taking active part in their religious work.

Various services at the College voice and shape the religious spirit. While there are no regular church exercises on Sunday, it has been the custom during the past two or three years to hold a few special services on Sunday afternoon, at which well-known and representative ministers of different denominations throughout the State address the students and all who choose to attend. The chapel is usually crowded at these services. A series of six has been planned this year to be held, one each month, through the winter and spring. The following is a list of preachers appointed by the Trustees for this year:

Rev. James H. Ecob, D. D., of the First Congregational church, Denver; Chancellor McDowell, of the University of Denver; Bishop Talbot, of the diocese of Wyoming; Rev. John B. McCuish, D. D., of the North Presbyterian church, Denver; Rev. Walter S. Priest, of the South Broadway Christian church, Denver; Rev. C. W. Williams, of the Capitol Hill Baptist church, Denver.

Five days in the week, at 9:15 in the morning, all the students gather with the Faculty, and such friends from outside as may wish to attend, in the chapel for morning prayers. The service is not long, but is impressive, with a hymn, responsive reading, chant, prayer, followed by the Lord's Prayer and benediction. Once a week, on Wednesday morning, the service is shortened for the President's ethical talk, in which he discusses questions bearing on the student life, taking up such questions as trustfulness, courtesy, large-mindedness, pure-mindedness, reverence. These talks have had a marked influence upon the standards and tone of the College life.

The Faculty and students meet also in a College prayer meeting held every week on Tuesday evening, from 7:15 until 8 o'clock.

Once a year the students and Faculty unite in the exercises of the Day of Prayer for Colleges, all usual college exercises being suspended for the day. A prayer meeting is held at an early morning hour, then follows at 11 o'clock the public service in the chapel, with an address by some speaker from outside the College. In the afternoon, classes often hold meetings by themselves, and in the evening all unite again in a prayer and conference meeting. A deep earnestness always pervades the exercises of the day.

The religious organizations, which are wholly under the control of the students themselves, are very flourishing. The Young Women's Christian Association has a membership of sixty, and holds a Sunday afternoon meeting with an average attendance of thirty-five. Every second meeting of the month is a union missionary meeting with the Young Men's Christian Association. Many of the young women are working under the direction of the Society in mission and sewing schools and other charitable work. Clothes and food have been provided by them for a number of poor families. A specific work undertaken by the Society is the support of a Bible woman in India. Last year a Salvation Army worker was supported in the same country. In addition to this work, the young women give effective aid to the young men in their various lines of Christian activity. Two young women were sent last summer to Northfield, Mass., as delegates to the Moody conference.

The Young Men's Christian Association numbers fifty-five. It holds a Sunday afternoon meeting with an average attendance of thirty-five, which would be larger if many of the members were not engaged at that time in religious work. It helps the life of Hagerman Hall by supplying the reading room with the best current periodicals and by conducting prayers every evening after supper. It has organized one class of Bible study and two for the systematic study of missions. Young women share in the latter classes. Besides this purely local activity, and the assistance the young men give the churches of which they are members, they are carrying on a vigorous work in several fields. Every Sunday and once during the week services are held by them in two places in the city. Twice a month they have charge of the Sunday services at the county jail. Every Sunday they conduct a Sunday school at the Hillside addition to the city, and hold services at a coal mining camp—Rose Hill. The young men also support, by a yearly contribution of $60, a native worker in India. Three delegates were sent last summer to Lake Geneva, Wis., and one to Northfield, Mass.

At the beginning of the College year members of the Associations meet all trains and welcome new students.

The Student Volunteer movement has entered the College, and is represented by an earnest band of nine, four of whom are young women. Its members, who are pledged to go to the foreign field if God opens the way, endeavor by every means to bring before the students and the various young people's societies in the city and its vicinity the importance of missionary work. In addition to a number of local meetings, they have conducted during the last year missionary conferences in Longmont and Manitou.

ALUMNI ASSOCIATION.

The Alumni Association of Colorado College is becoming one of the important features of the College and college life. Its membership consists of those students who have attended the College long enough to have an interest in its welfare, and who desire to keep up the acquaintance of graduates and others who have attended the College.

The Association holds its meetings every year during Commencement Week, generally having a banquet following the business meeting. At this meeting questions of interest to the College and the Association are discussed.

The most prominent line of work at present is the raising of a Scholarship Fund.

OFFICERS.

Oliver H. Shoup,	President.
Elizabeth A. Rowell,	Vice-President.
Nettie M. Cary,	Vice-President.
Walter R. Wilder,	Secretary.

LITERARY SOCIETIES AND ORATORICAL CONTESTS.

The two Literary Societies of the College and that of the Academy furnish opportunity for independent work and drill in public debate and parliamentary practice. A hall, handsomely furnished by the students themselves, is occupied by the College Societies.

The Apollonian Club holds an annual contest in debate for a prize of fifty dollars. The prize at the last contest was won by Messrs. A. E. Holt, '98, and J. R. Thompson, '99.

An Oratorical Contest is held each year, as mentioned on page 53, and is open to all members of the College. The winner represents the College in the State Intercollegiate Oratorical Contest.

A Prize Declamation Contest is held at the close of each Academic year, and is open to members of the Freshman Class. The prize at the last contest was awarded to J. R. Thompson, Miss Honora De Busk taking second place.

STUDENTS' PUBLICATION.

The *Colorado Collegian*, a fortnightly paper, is issued by an editorial board, elected from the College classes with one additional member from the Academy.

SPECIAL STUDENTS.

Special students will be received, at the discretion of the Faculty, into such classes as they are qualified to enter. It is the rule of the College that such students must attend the examinations as well as the ordinary recitations of their classes, subject to the same provisions as other students.

Several of the courses of lectures which form part of the College instruction, particularly in the department of Philosophy, are open to the public on payment of a small fee, and, of course, without any requirement of examination.

EXPENSES.

Tuition, by the year	$35 00
Matriculation fee	5 00
Library fee	3 00
Table board in Montgomery Hall,* a week	4 00
Table board in Hagerman Hall† (club for young men), a week.	2 50
Table board in Tillotson Hall† (club for young women), a week.	2 50
Table board in Students' Club House (for young men), a week.	3 00
Rooms, warmed and furnished, a week, from $1.00 to	2 00
Total expense at Montgomery Hall, including room, board, heat and light, a week	6 00

COLLEGE BILLS.

The term bills are issued at the beginning of each half-year, and are payable immediately, unless special arrangements are made with the President.

Students who leave before the end of the term pay full tuition, except under very unusual circumstances.

PECUNIARY ASSISTANCE.

SCHOLARSHIPS.—The income of the following scholarships is devoted to the aid of worthy students who may need assistance in completing their course, and who, by their scholarship and character, prove themselves worthy of such assistance.

The Thomas Davee Scholarship of $500, established by the late Mrs. T. V. D. Mitchell, of West Minot, Maine.

The Rice Scholarship of $700, established by the friends of Rev. Chas. B. Rice, of Danvers, Mass.

The Currier Scholarship of $1,000, founded by the late Hon. Warren Currier, of St. Louis, Mo.

The Edwards Scholarship of $500, given by the Congregational Church of Wellesley Hills, Mass.

The Mary Caroline Quincy Scholarship of $500, given by Mr. George Henry Quincy, of Boston, Mass.

The Lawrence Myers Scholarship of $1,000, and the Lucy Platt Myers Scholarship of $1,000, given by Mrs. Laetitia M. Myers, of Plainfield, New Jersey.

---

* Montgomery Hall is a residence for young women, but any person connected with the College may secure table board there.

† Students rooming in Hagerman or Tillotson Hall are required to furnish towels, bed linen and blankets.

A Scholarship of $1,000, given by Mr. William F. Richards, through the Woman's Educational Society of Colorado College.

The Willard B. Perkins scholarship of $7,000. The second Willard B. Perkins scholarship of $7,000. These two scholarships were given by the late Willard B. Perkins, of Colorado Springs.

Several other scholarships are supported by annual subscription.

SELF-SUPPORT.—Good scholars have opportunities for private teaching. A young man can find work in town, and there are many sources from which young women may derive an income while continuing their studies. Some students have paid all their expenses by current earnings.

THE WOMAN'S EDUCATIONAL SOCIETY OF COLORADO COLLEGE.

This Society was formed in April, 1889, by the women of Colorado Springs. Its purpose, as expressed in its constitution, is "to give physical, intellectual and spiritual aid to students in any department of Colorado College." This Society built Montgomery Hall, and has been of service in many ways to the College.

The members of the Society endeavor to come into personal relations with the students, especially with those who are self-supporting; they try to find work for them, and by friendly advice assist them in their efforts to secure an education. The membership fees of the Society go to form a beneficiary fund, from which loans are made on the following conditions:

First.—Loans may be made to students who have been in the College for one term, and are recommended by the Faculty as in every way deserving of such aid.

Second.—No student shall be allowed to incur an indebtedness to the Society of more than $300.

Third.—Students may receive loans without interest until their connection with the College ceases; after that time their notes shall draw interest at four per cent.

The officers of the Society for the current year are:

President—Mrs. William F. Slocum.
Recording Secretary—Mrs. Edward Woolsey Bacon.
Treasurer—Mrs. Florian Cajori.
Corresponding Secretary—Mrs. Edward S. Parsons.

THE NEEDS OF THE COLLEGE.

Colorado College, never more truly than to-day, has great and pressing needs. Since the completion of the endowment fund of two hundred thousand dollars, the College stands upon a firm financial basis; but greater facilities in the way of equipment are an immediate necessity. The attention of the public was not called to these considerations while the permanent financial status of the College was in any degree uncertain; but now that this, through the generous assistance of Dr. Pearsons and many other friends, is made secure, the Trustees and Faculty feel it imperative that the opportunity for service which lies before the College, and the conditions by which this opportunity can be embraced, be understood. The urgent demands of the hour should be realized, not only by those who in previous years and in the past few months have nobly aided the College, but by all persons who are interested in the cause of learning, in the progress of science, and in the growth and development of the best educational institutions as a safeguard for republican government. Among the needs which force themselves upon attention are the following:

INCREASED ENDOWMENT FUNDS.

Endowment of Professorships.—It is greatly to be desired that the chairs in the various departments be permanently endowed. This need has come to be urgent, by reason of the rapid growth in numbers and the consequent demands for instruction and for more complete courses.

Funds for the Library.—The permanent fund for purchasing books is too small, and both the regular work of the College and the value of the library to the city are seriously hampered by this limitation. The College appeals earnestly to lovers of books for money to be used for this purpose, either to be added to the permanent fund, or to be immediately expended for the more pressing demands of the present moment.

Special Funds for Scientific Research.—Money to be devoted to scientific work in special lines is very greatly needed. The opportunities of Colorado College in this direction are unusual, because of the geographical, meteorological and geological situation. The attention of those interested in the advancement of science is earnestly called to this fact and to the statements in the article "Museum," p. 83.

Physical Apparatus.—The Physical Laboratory is equipped with some very good apparatus, but a great deal more is needed for effective work in advanced classes and for the purpose of original investigation. With a few thousand dollars our facilities could be immensely enlarged.

Astronomical Instruments.—The Observatory needs a transit-instrument, an astronomical clock, star-charts and several small pieces of apparatus for use in conjunction with the equatorial telescope. In the latter direction gifts of very small amounts would be immediately useful.

NECESSARY BUILDINGS.

A Science Building.—The present accommodations afforded the Departments of Chemistry, Physics, Biology and Geology are painfully inadequate. The laboratories are so crowded that the work now done is accomplished under difficulty, while greatly desired extensions are prevented. The need of increased space for collections has elsewhere been noticed. A large building for all purposes of natural science was, even last year, very seriously needed; but this year the demand is even greater. It is to be hoped that some lover of science will soon give to Colorado College this much-needed building.

A Music and Art Building.—Rooms for practice and instruction in music, a large studio for the classes in drawing and painting, and an assembly room to be used for concerts and lectures, are an immediate necessity. The instruction in music is at present given under great difficulties, so far as arrangements for rooms are concerned, and in order to meet the demands of the current year in the Art Department an arrangement has been made which not only must be temporary, but which is already inadequate.

Residence Halls.—It has been necessary to lease a house in the city this year as a residence for young women. The poor economy of this action is evident, since the campus has many desirable sites for such a building. The need of an additional dormitory for young men is also urgent. Both these buildings will be greatly needed in the fall of 1897.

SCHOLARSHIP FUNDS.

The Trustees desire to emphasize the fact that many young people in a new country are obliged to earn their education by hard and self-denying work. Colorado College needs a large addition to her scholarship funds. Money thus applied tends directly to the profit of the individual and of the country.

FORMS OF BEQUEST.

Those who intend to devise property to Colorado College, or to the Woman's Educational Society, are requested to employ the following Forms of Bequest:

"I hereby give, devise and bequeath unto The Colorado College, of Colorado Springs, Colorado, the sum of ....dollars."

"I hereby give, devise and bequeath unto the Woman's Educational Society of Colorado College, of Colorado Springs, Colorado, the sum of .... dollars."

If property other than money is willed, the form should be correspondingly varied.

TWENTY-FOURTH

ANNUAL BULLETIN

OF

COLORADO COLLEGE

AND

CUTLER ACADEMY,

COLORADO SPRINGS,

COLORADO.

MAY, 1898.

COLORADO SPRINGS, COLORADO:
THE TELEGRAPH PRINTING COMPANY.
1898.

TICKNOR HALL, COLORADO COLLEGE.
COLORADO SPRINGS, COLO:

Douglas & Hetherington,
Architects, Colorado Springs.

CONTENTS.

PAGE.
Announcement, ... 5
Trustees, Standing Committees, ... 7
College Officers, ... 8
Board of Control of the N P. Coburn Library, ... 8
Faculty, ... 9
Standing Committees of the Faculty, ... 13
Class Officers, ... 14
Calendar, ... 14
Requiriments for Admission, ... 15
Entrance Examination, ... 20
Admission to Courses, ... 21

COURSES OF STUDY—

Bachelor of Arts, ... 21
Bachelor of Philosophy, ... 24
Bachelor of Science, ... 28

DEPARTMENTS OF INSTRUCTION—

Philosophy, ... 31
Pedagogy, ... 33
Greek, ... 34
Latin, ... 35
English, ... 37
Modern Languages—German, French, Spanish, ... 38
Mathematics and Astronomy, ... 40
Physics, ... 42
Chemistry, ... 43
Biology, ... 46
Geology, ... 48
Economics, ... 49
Political Science, ... 50
History, ... 51
Bible Study, ... 52
Expression and Oratory, ... 52
Physical Training, ... 53
Prizes and Honors, ... 55
Schedule of Recitations, ... 56

THE CUTLER ACADEMY—

Faculty, ... 58
Statement, ... 59
Requirements for Admission, ... 60
Courses of Instruction, ... 61
Appendix (Supplementary Readings in English, etc.) . . . 67

COLORADO COLLEGE CONSERVATORY OF MUSIC— PAGE.

Faculty, ... 68
Purpose and Scope, ... 69
Relation to Colorado College, ... 71
Courses of Study, ... 71
Free Advantages, ... 74
Special Features, ... 74
Expenses,—Tuition, Rooms, Board, etc., ... 75

DEPARTMENT OF ART AND DESIGN—

General Scope, ... 75
Course of Instruction, ... 76

CIRCULAR OF INFORMATION—

Location, ... 77
College Buildings, ... 78
Library, ... 80
Reading Rooms, ... 82
Labratory and Apparatus, ... 82
Museum, ... 83
The Colorado College Scientific Society, ... 87
University Extension Lectures, ... 89
Religious Life, ... 92
Alumni Association, ... 95
Literary Societies and Oratorical Contests, ... 95
Students' Publication, ... 96
Glee Club. 96
Special Students, ... 96
Expenses, ... 97
College Bills, ... 97
Pecuniary Assistance, ... 97
The Woman's Educational Society, ... 98
The Needs of the College, ... 99
Forms of Bequest, ... 102

ANNOUNCEMENT.

Colorado College is the oldest institution of higher education in the State. In 1874, while Colorado was yet a territory, a College upon a broad Christian foundation was established in Colorado Springs. The authorized announcement for that year contains the following words:

"It is the purpose of the Trustees to build a College in which liberal studies may be pursued under positive Christian influences. . . . The College is under no ecclesiastical or political control. Members of different churches are on its board of Trustees. . . . The character which is most desired for this College is that of thorough scholarship and fervent piety, each assisting the other, and neither ever offered as a compensation for the defects of the other."

From the beginning the Board of Trustees has been composed of leading professional and business men of Colorado, together with a few Eastern men of similar standing, and has ever been animated by the purpose avowed by the original Board.

A grant of land and a promise of $10,000 in money had been made in advance of the organization of the College, in 1873, by the Fountain Company, the founders of the city of Colorado Springs. The Rev. Jonathan Edwards was the first professor and executive officer. The first President, the Rev. James G. Dougherty, was elected in 1875, and was succeeded in the following year by the Rev. E. P. Tenney. From 1885 to 1888 there was no President, but the work of teaching was carried on without interruption. At this time there was only one building on the campus, Palmer Hall, erected in 1880.

In the autumn of 1888, William Frederick Slocum was elected President. The faculty was at once enlarged, the courses reorganized, and Cutler Academy incorporated as an associated preparatory school, in which students have since been trained, not only for

Colorado College, but for all the leading institutions of the United States. Within the two following years a hundred thousand dollars was given toward endowment, entirely from within the State of Colorado. Hagerman Hall was built in 1889. In the same year the Woman's Educational Society was organized and began the work of building Montgomery Hall. In 1890 the Colorado College Scientific Society was founded, and the first installment of its annual publication, Colorado College Studies, issued.

Within the current decade, the growth of the College in numbers—a growth uninterrupted by the general financial depression—has been matched by an appropriate enlargement of equipment and activity. Among the marks of advance are the Gymnasium, built by the efforts of students; the costly Library building, given by the late N. P. Coburn; the Observatory, the gift of Henry R. Wolcott, of Denver; and Ticknor Hall, completed during the closing days of 1897, as a second dwelling house for young women. The entire cost of this beautiful building, exceeding $23,000, was met by a single donor, who has insisted upon remaining unknown. Growth in other directions is indicated by the establishment of a strong course leading to the degree of Bachelor of Science, by the University Extension work, by the addition of an Art Department and by the founding of the Conservatory of Music, which, while preserving its proper relation to the academical departments, successfully maintains an equally high educational standard. Other notable forward movements have resulted in the consolidation of Tillotson Academy with Cutler Academy, and in the completion of the new endowment fund of two hundred thousand dollars, one-fourth of which was contributed by Dr. D. K. Pearsons of Chicago. While not without needs that are keenly felt, the College has won an assured position and permanence, and offers to its students educational facilities of the same grade as are found at Eastern institutions of the higher learning.

TRUSTEES OF THE COLLEGE.

William F. Slocum, *Pres't of the Board*,	Colorado Springs.
George W. Bailey,	Denver.
William P. Bonbright,	Colorado Springs.
Rev. W. H. W. Boyle, D. D,	Colorado Springs.
John Campbell,	Denver.
Henry Cutler,	North Wilbraham, Mass.
Rev. James B. Gregg, D. D.,	Colorado Springs.
J. J. Hagerman,	Colorado Springs.
John R. Hanna,	Denver.
Thomas S. Hayden,	Denver.
Irving Howbert,	Colorado Springs.
William S. Jackson,	Colorado Springs.
Horace G. Lunt,	Colorado Springs.
F. L. Martin,	Colorado Springs.
William J. Palmer,	Colorado Springs.
George H. Parsons,*	Colorado Springs.
M. D. Thatcher,	Pueblo.
Rev. Philip Washburn,	Colorado Springs.

STANDING COMMITTEES OF THE TRUSTEES.

EXECUTIVE.

J. J. Hagerman, *Chairman:* George H. Parsons, *Secretary;* James B. Gregg, William S. Jackson, William J. Palmer.

FINANCE.

William S. Jackson, *Chairman:* William P. Bonbright, J. J. Hagerman, Irving Howbert, William J. Palmer.

INSTRUCTION.

James B. Gregg, *Chairman:* W. H. W. Boyle, John Campbell, Horace G. Lunt, Philip Washburn.

GROUNDS AND BUILDINGS.

George H. Parsons, *Chairman:* Thomas S. Hayden, F. L Martin, William J. Palmer, Philip Washburn.

(The President of the College is *ex officio* a member of all committees.)

---

*Deceased April 14th, 1898.

COLLEGE OFFICERS.

William F. Slocum, *President*. George H. Parsons, *Secretary*.
George N. Marden, *Treasurer*.

BOARD OF CONTROL OF THE N. P. COBURN LIBRARY.

Chairman—William F. Slocum, *President*.
Secretary—Herman G. A. Brauer, *Librarian*.

Miss A. R. Bell.
Rev. W. H. W. Boyle, D. D.
Rev. E. Braislin, D. D.
Miss Ellen T. Brinley.
Prof. Florian Cajori.
Prof. Francis W. Cragin.
Mr. Louis R. Ehrich.
Prof. G. A. H. Fraser.
Mrs. E. C. Goddard.
Mr. Rubin Goldmark.
Rev. Jas B. Gregg, D. D.
Mrs. J. J. Hagerman.
Mr. C. W. Haines.
Mr. H. C. Hall.
Judge H. G. Lunt.
Mr. T. C. Parrish.
Prof. E. S. Parsons.
Mr. Geo. H. Parsons.
Mr. J. G. Shields.
Mr. Leslie J. Skelton.
Mrs. W. F. Slocum.
Dr. S. E. Solly.
Mrs. A. E. Touzalin.
Prof. Francis Walker.
Rev. Philip Washburn.

FACULTY.

WILLIAM FREDERICK SLOCUM, B. D., LL. D.,

President and Professor of Philosophy.

A. B. (Amherst), '74; B. D. (Andover), '78; LL D. (Amherst), '93; LL. D. (University of Nebraska), '94; Colorado College. '88.

LOUIS A. E. AHLERS, A. B.,

Professor of Modern Languages and Literature.

A. B. (Harvard), '94; University of Berlin, '93-'94; Harvard Graduate School, '94-'95; Colorado College, '95.

HERMAN G. A. BRAUER, PH. B., A. B.,

Librarian.

Concordia Seminary, St. Louis, Mo., '93; Ph. B. (Colorado College), '96; A. B. (Colorado College), '97.

FLORIAN CAJORI, M. S., PH. D.,

Professor of Physics.

S. B. (University of Wisconsin), '83; M. S (University of Wisconsin), '86; Ph.D. (Tulane University), '94; Johns Hopkins University, '84-'85; Assistant Professor of Mathematics, Tulane University, '85-'87; Professor of Applied Mathematics, Tulane University, '87-'88, Unites States Bureau of Education, '88-'89: Colorado College, ' 89.

NATHAN BROWN COY, A. B.,

Associate Professor of the Classical Languages and Literature, and Principal of the Cutler Academy.

A. B. (Yale), '70; Instructor Fort Washington French Institute (on the Hudson), '70-'71; Instructor Hasbrouck Institute, Jersey City, '71-'73; Principal Preparatory Department, Hanover College, Ind., '73-'74; Classical Instructor, Betts Academy, Stamford, Ct., '74-'75; Professor of Latin, Phillips Academy, Andover, Mass., '75-'76; Department of Classics, Denver High School, '81-'86; State Superintendent of Public Instruction, Colorado, '91-'93; Colorado College, '97.

FRANCIS WHITTEMORE CRAGIN, S. B.,

Professor of Geology, Minerology and Paleontology.

Agassiz Laboratory, Newport, '81; S. B (Harvard), '82; Professor of Natural History, Washburn College, '82-'91; State Geological Survey of Texas, '92-'93; Colorado College, '91.

EDITH DE COURSEY.

Instructor in Physical Culture.

Miss Amos's School, Bromley, Kent, England, '87; Pupil of Prof. Halsie (a graduate of Emerson School of Oratory, Boston), '95, and of Miss McMartin (a pupil of Dr. Sargent), '96–'97; Colorado College, '97.

P. E. DOUDNA, A. M.,

Instructor in Mathematics.

A. B. (University of Wisconsin), '94; Fellow in Applied Mathematics, University of Wisconsin, '94-'95; A. M. (University of Wisconsin), '97; Colorado College, '96.

WILHELM FICK, A. M., Ph. D.,

Instructor in German.

Harvard University, '87-'88; University of Breslau, '89-'90; University of Berlin, '90-'91; A. M. (Breslau), '91; Ph. D. (Breslau), '93; Instructor in German and English, Victoria College, University of Toronto, '93; Lecturer in German, '94-'97; Examiner in Arts, University of Toronto, '94-'97; Colorado College, '97.

GEORGE A. H. FRASER, A. M.,

Professor of Latin.

A. B. (University of Toronto), '89; A. M. (University of Toronto), '90; Tutorial Fellow in Classics, University of Toronto, '89-'91; Professor of Latin and Greek Languages and Literature, College of Montana, '91-'93; Member of the Montana State Board of Higher Education, '93; Colorado College, '93.

M. CLEMENT GILE, A. M.,

Professor of Greek.

A. B. (Brown University), '83; A. M. (Brown University), '86; Instructor in Phillips Academy, Andover, Mass , '83-'92; Assistant Professor of Greek, University of Chicago, '92-'94; Colorado College, '92

RUBIN GOLDMARK,

Director of the Conservatory of Music, and Instructor in Harmony, Counterpoint and Composition.

Conservatory of Music, Vienna, '89-'91; Pupil of Raphael Joseffy and Anton Dvorak, '91; Instructor National Conservatory of Music, New York, '91-'93; Colorado College, '95.

HENRY EVARTS GORDON, A. B.,

Professor of Rhetoric and Oratory, and Instructor in Spanish.

A. B. (Amherst), '79; Principal Tillotson Academy, Trinidad, Colo., '80-'96; Colorado College, '96.

WILLIAM R. GREENBURY,

Director of the Department of Art and Design.

Graduate South Kensington School of Design, '83; Pupil of Brannegan, Morton and Speedy; Colorado College, '97.

ELLSWORTH GAGE LANCASTER, A. M., Ph. D.,

Instructor in Philosophy and Pedagogy, and President's Assistant.

A. B. (Amherst), '85; A. M. (Amherst), '88; B. D. (Andover), '89; Ph. D. (Clark University), '97; Instructor in Elocution and Physical Culture, Williston Seminary, '85–'86; Instructor in French, German, Latin and English, Morgan Park, Ill., '87-'88; Principal and Teacher of Philosophy, Classics and Modern Languages, Eureka (Kas.) Academy, '90-'95; University Scholar in Psychology, Clark University, '95-'96; University Fellow in Psychology, Clark University, '96-'97; Colorado College, '97.

MABEL RUTH LOOMIS, A. B.,

Dean of Women.

A. B. (Vassar), '85; Instructor in English, Vassar, '86-'95; Colorado College, '96.

FRANK HERBERT LOUD, A. B.,

Professor of Mathematics and Astronomy.

A. B (Amherst), '73; Walker Instructor in Mathematics, Amherst, '73-'76; Instructor in Geometry, Smith College, '79; Scholar in Mathematics, Clark University, '90-'91; Colorado College, '77.

HANNAH TAYLOR MUIR,

Instructor in Hygiene and Medical Adviser.

Woman's Medical School, Philadelphia, '88-'90; M. D. (University of Colorado), '93; Clinical Obstetrician, University of Colorado, '93–'95; Assistant County Physician, Arapahoe County, Colo., '93-'94; Post Graduate School of Medicine and Polyclinic, New York, '95; Allgemein Polyclinic, Vienna, '96; Philadelphia Polyclinic, '97; Colorado College, 95.

ATHERTON NOYES, A. B.,

Instructor in English and Greek, and Dean of the Faculty.

A. B. (Yale), '85; Colorado College, '92.

EDWARD S. PARSONS, A. M., B. D.,

Bemis Professor of English.

A. B. (Amherst), '83; A. M. (Amherst), '86; B. D. (Yale), '87; Colorado College, '92.

WILLIAM STRIEBY, A. M., E. M.,

Professor of Chemistry and Metallurgy.

A. B. (University of New York), '75; E. M. (Columbia University School of Mines), '78; A. M. (University of New York), '79; Principal Santa Fe Academy, Santa Fe, N. M., '78-'80; Colorado College, '80.

FRANCIS WALKER, S. B., A. M., Ph. D.,

Professor of Political and Social Science.

S. B. (Massachusetts Institute of Technology), '92; A. M. (Columbia University), '93; Ph. D. (Columbia University), '95; University Fellow in Economics, Columbia University, '92-'94; with Massachusetts Board to Investigate the Unemployed, '94-95; Colorado College, '95.

FACULTY OF MUSIC.

RUBIN GOLDMARK, DIRECTOR.

CLARENCE WILBER BOWERS,

Instructor in Piano-forte and Organ.

Graduate New England Conservatory of Music, Boston; Pupil of G. W. Chadwick and Ferruccio Busoni, '90-'92; Pupil of Alexandre Guilmant, Paris, '95-'96; Organist and Instructor of Music in Seminary and Academy, Andover, Mass , '91-'92; Professor of Instrumental Music and Harmony, Cornell College, Mt. Vernon, Iowa, '92-'95; Colorado College, 96.

CHARLES DOPF,

Instructor in Violin.

Member of Damrosch Symphony Orchestra, N. Y., '89-'96; Colorado College, '96.

OMA FIELDS,

Instructor in Piano-forte.

New England Conservatory of Music (graduate), '89; Pupil of Leschetitzky, Vienna, '96; Colorado College, '94.

EDITH HUSE FRASER,

Instructor in Vocal Harmony.

Instructor in Music, St. Timothy's School, Catonsville, Md,,'88-'90; Instructor in Music, St. Hilda's School, Morristown, N. J., '90-'91; Pupil of Prof. Karl Klindworth and Prof. Jedlitchka, Berlin, '92-'93; Graduate of Henry Holt's School of Vocal Harmony, Boston, '95; Colorado College, '95.

FREDERIC HOWARD,

Instructor in Voice Culture.

Pupil of Stockhausen, Frankfort, Germany, '91-'93; Colorado College, '96.

STANLEY CASIMIR KACHELSKI,

Instructor in Brass Instruments.

Director of Polish Military Band, Bay City, Mich., '89-'91; Pupil of Henri Beltmann and of Stross, '93-'94; Director of Auditorium Theatre Orchestra, San Jose, Cal., '94 '96; Director of brass department, King's Conservatory of Music, San Jose, Cal., '95-'96; Colorado College, '97.

RICHARD FRANZ SCHUBERT,

Instructor in Violoncello.

Pupil of Grutzmacker, Dresden, '74-'77; Member of Thomas' Orchestra, New York, '81-'82; Colorado College, '97.

FANNY AIKEN TUCKER,

Instructor in Voice Culture.

Hershey School of Musical Art, '84-'85; Special Student in Oratorio and Church Music with Mrs. Sara Hershey Eddy, Chicago, '86-'90; Colorado College, '94.

LECTURERS BEFORE THE SENIOR AND JUNIOR CLASSES.

J. T. ESKRIDGE, M. D.,
States of Disturbed Consciousness.

LEONARD FREEMAN, M. D.,
Anatomy of the Brain; Microscopic Analysis of Nervous Tissue.

THE REV. JAMES B. GREGG, D. D.,
The Ethical Teaching of the Old Testament.

HOWELL T. PERSHING, M. D.,
Localization of Brain Functions: The Psychology of Speech; Physical Basis of the Higher Mental Faculties; Hysteria; Hypnotism.

GERALD B. WEBB, M. D.,
Physiological Psychology.

Lady-in-Charge at Montgomery Hall,
MRS. NATHAN B. COY.

Lady-in-Charge at Hagerman Hall,
MRS. HARRIET STORRS CULVER.

Lady-in-Charge at Ticknor Hall,
MISS MABEL RUTH LOOMIS.

STANDING COMMITTEES OF THE FACULTY.

SCHOLARSHIPS.

The President, *Chairman;* Mrs. William F. Slocum, Prof. Gile.

SCHEDULE AND PUBLICATIONS.

Prof. Loud, *Chairman;* Prof. Cajori, Mr. Doudna.

POST GRADUATE DEGREES.

Prof. Walker, *Chairman;* Prof. Parsons, The President.

ATHLETICS.

Prof. Gordon, *Chairman;* Prof. Ahlers, The President.

MUSIC.

Mr. Goldmark, *Chairman;* Miss Loomis, Prof. Parsons.

ART.

William Greenbury, *Chairman;* Mrs. William F. Slocum, Mr. Atherton Noyes.

ACCREDITED SCHOOLS.

The President, *Chairman;* Prof. Gile, Prof Coy.

CLASS OFFICERS.

COLLEGE.	ACADEMY.
Seniors—The President.	*IV*—Prof. M. C. Gile.
Juniors—Prof. G. A. H. Fraser.	*III*—Prof. William Strieby.
Sophomores—Prof. L. A. E. Ahlers.	*II*—Prof. H. E. Gordon.
Freshmen—Prof. E. S. Parsons.	*I*—Mr. P. E. Doudna.
Special Students— Prof. Florian Cajori.	*Special Students*— Prof. F. Walker.

CALENDAR.

1898.

April 6	Wednesday	Easter Recess begins at 1 P. M.
April 13	Wednesday	Easter Recess ends at 8:30 A. M.
May 30	Monday	Decoration Day.
June 6	Monday	Second Semi-annual Examinations begin. First Entrance Examinations begin.
June 12	Sunday	Baccalaureate Sermon.
June 13	Monday	College Oratorical Contest.
June 14	Tuesday	Cutler Academy Graduation Exercises.
June 15	Wednesday	Commencement Exercises.
Sept. 13	Tuesday	Second Entrance Examinations begin.
Sept. 14	Wednesday	First Half-Year begins at 8:30 A. M.
Nov. 23	Wednesday	Thanksgiving Recess begins at 1 P. M.
Nov. 28	Monday	Thanksgiving Recess ends at 8:30 A. M.
Dec. 21	Wednesday	Christmas Recess begins at 1 P. M.

1899.

Jan. 4	Wednesday	Christmas Recess ends at 8:30 A. M.
Jan. 26	Thursday	Day of Prayer for Colleges
Jan. 30	Monday	First Semi-annual Examinations begin.
Feb. 6	Monday	Second Half-Year begins at 8:30 A. M.
Feb. 22	Wednesday	Washington's Birthday.
Mar. 29	Wednesday	Easter Recess begins at 1 P. M.
April 6	Thursday	Easter Recess ends at 8:30 A. M.
May 30	Tuesday	Decoration Day.
June 5	Monday	Second Semi-annual Examinations begin. First Entrance Examinations begin.
June 11	Sunday	Baccalaureate Sermon.
June 12	Monday	College Oratorical Contest.
June 13	Tuesday	Cutler Academy Graduation Exercises.
June 14	Wednesday	Commencement Exercises.
Sept. 12	Tuesday	Second Entrance Examinations begin.

REQUIREMENTS FOR ADMISSION

TO THE

FRESHMAN CLASS.

For the Course Leading to the Degree of Bachelor of Arts.

Admission by Examination.

1. In Greek.—(a.) A thorough knowledge of inflection, with the use of the accents, and the ordinary grammatical constructions. (b.) Four books of the Anabasis. (c.) Three books of the Iliad, with prosody and dialectic forms. (d.) Translation at sight of average passages from Xenophon and Homer. (e.) The translation into Greek of a passage of connected discourse of moderate difficulty. (Collar and Daniell's Greek Prose Composition, or the first forty-four exercises in Allinson's, will indicate the nature of the work required.) (f.) Such a brief general view of Greek history as is contained in the revised edition of Pennell's or Myers' History of Greece.

2. In Latin.—(a.) Grammar. Special stress will be laid upon an accurate and ready knowledge of grammatical forms. (b.) Caesar: Gallic War, Bks. I-IV, or an equivalent. (c.) Cicero: Seven orations. (d.) Vergil: Aeneid, Bks. I-VI. (e.) Translation at sight of easy passages of prose Latin. (f.) Prose Composition (Daniell or `Moulton and Collar). (g.) An outline knowledge of the history of the Roman Republic.

3. In English.—The candidate will be required to write a short essay, which will be judged from the standpoint of thought, spelling, punctuation, grammar and division into paragraphs, on one of several topics which will be announced at the time of the examination. In 1898 the topics will be chosen from the follow-

ing works: Milton's Paradise Lost, Books I and II; Pope's Iliad, Books I, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; Southey's Life of Nelson; Carlyle's Essay on Burns; Lowell's Vision of Sir Launfal; Hawthorne's House of the Seven Gables.

All these books are to be read carefully and intelligently. Minute knowledge of them will not be required, but the candidate will be expected to have clearly in mind their important parts. For the examinations in 1899 and 1900 the following books are prescribed:

For 1899.—Dryden's Palamon and Arcite; Pope's Iliad, Books I, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; De Quincey's Flight of a Tartar Tribe; Cooper's Last of the Mohicans; Lowell's Vision of Sir Launfal; Hawthorne's House of the Seven Gables.

For 1900.—Dryden's Palamon and Arcite; Pope's Iliad, Books I, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Scott's Ivanhoe; De Quincey's Flight of a Tartar Tribe; Cooper's Last of the Mohicans; Tennyson's Princess; Lowell's Vision of Sir Launfal.

In addition to the above, the candidate will be required to pass an examination upon the subject matter, form and other literary qualities of the following books: Shakespeare's Macbeth; Burke's Speech on Conciliation with America; Scott's Marmion; De Quincey's Flight of a Tartar Tribe; Tennyson's Princess.

For the examinations in 1899 and 1900, the following are prescribed:

For 1899.—Shakespeare's Macbeth; Milton's Paradise Lost, Books I and II; Burke's Speech on Conciliation with America; Carlyle's Essay on Burns.

For 1900.—Shakespeare's Macbeth; Milton's Paradise Lost, Books I and II; Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and Addison.

A mastery of the essentials both of English grammar and of elementary rhetoric will also be required of all candidates.

4. IN GERMAN OR FRENCH.—A good elementary knowledge of the language, such as is sufficient for reading easy prose at sight. See outline of courses, "German A" and "French A," on pp. 38 and 40, respectively.

5. IN MATHEMATICS.—(a.) Algebra, through simultaneous quadratic equations. (b.) Elementary Plane Geometry, or as much as is contained in the first five books of Beman and Smith's or Phillips and Fisher's Geometry.

While Solid Geometry is not required, the student who adds this to his preparatory mathematical course will gain an advantage, particularly if he propose to take the course in Surveying in Freshman year. See p. 41.

Candidates from schools where Greek is not taught, who have completed the preparation for the Bachelor of Philosophy division of the Freshman class, but prefer to follow the course for the degree of Bachelor of Arts, will be allowed to do so by taking Greek through the whole four years.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed the Classical preparatory course adopted by the Colorado State Teachers' Association will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Arts.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF PHILOSOPHY.

Admission by Examination.

In Latin, English, German (or French), and Mathematics, the requirements and recommendations are the same as for the course leading to the degree of Bachelor of Arts. Candidates for admission to this course need not offer Greek, in place of which they will be examined in the following subjects:

1. In Physics.—Gage's Introduction to Physical Science, Carhart and Chute's Elements of Physics, or an equivalent.

2. In Chemistry.—Williams' Elements of Chemistry, or an equivalent.

3. In Botany.—Gray's Lessons (revised edition), or Bergen's Elements of Botany.

4. In Physiology.—Martin's Briefer Course, or an equivalent.

5. In American or English History.—An outline knowledge of the leading facts.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed the Latin Scientific preparatory course adopted by the Colorado State Teachers' Association will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Philosophy.

For the Course Leading to the Degree of Bachelor of Science.

Admission by Examination.

In Physics, Chemistry, Botany, Physiology, American or English History, and in English, the requirements are the same as for the course leading to the degree of Bachelor of Philosophy. The following are the additional requirements:

1. In Latin.—Four books of Caesar's Gallic War, or an equivalent, with a thorough knowledge of grammar; Latin Composition, at least so much as is contained in the first part of Daniell's or Moulton and Collar's Prose Composition.

2. In German.—Joynes-Meissner's German Grammar; exercises in translating English into German; Storm's Immensee, Jensen's Braune Erica, Chamisso's Peter Schlemihl, Hauff's Karavane, Gerstaecker's Germelshausen, Heyne's Harzreise, Schiller's Tell, Lessing's Minna von Barnhelm, Goethe's Egmont and Freytag's Journalisten, or an equivalent.

3. In French.—A good elementary knowledge of the language, such as is sufficient for reading easy prose at sight. See outline of the course "French A," p 40.

4. In Mathematics.—(a.) Algebra, including the elements of the Theory of Infinite Series (Binomial, Exponential and Logarithmic Series, with simple applications in computation), and so much of the Theory of Equations as to include Horner's Method of Solution. (b.) Geometry, Plane and Solid, as contained in Beman and Smith's Geometry, or in Phillips and Fisher's, exclusive of the chapter on Modern Geometry. (c.) Trigonometry, Plane and Spherical. The principles involved in the solution of triangles must be comprehended, and a fair degree of readiness and accuracy in their use acquired.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed a preparatory course, similar in character and equivalent in extent to the above requirements, will be admitted without condition into the Freshman class in the course leading to the degree of Bachelor of Science.

ACCREDITED SCHOOLS.

The following schools are on the accredited list; certificates of the satisfactory completion, in any of them, of any branch in the course of study required for admission to the College will be accepted in lieu of examination:

Aspen High School.
Canon City High School.
Central City High School
Cheyenne (Wyo.) High School
College of the South West.
Colorado Springs High School.
Denver: High School, District No. 1.
“ High School, District No. 2.
“ N. Side High School.
Durango High School.
Fort Collins High School.
Georgetown High School.
Golden High School.
Grand Junct. High School.
Greeley High School.
Jarvis Hall, Montclair.
Leadville High School.
Longmont High School.
Pueblo: High School, Dist. No. 1.
“ High School, Dist. No. 2.
Salida Academy.
Salida High School.
Trinidad High School.
Wolfe Hall, Denver.

ENTRANCE EXAMINATIONS.

Examinations for admission to the College will take place on Monday and Tuesday, June 6 and 7, 1898, and again on Tuesday, September 13, 1898. They are held in Palmer Hall, beginning at 9 A. M. No examination will be held between these dates, but delayed examinations may be held after the beginning of the fall term for the accommodation of students who, for good reason, have been unable to attend at the regular time.

For the accommodation of students residing at a distance, examinations will be held under the direction of authorized persons, at various points in and near the State, as need may require. The cities of Cheyenne, Wyo., Denver, Pueblo, Trinidad, Leadville, Montrose and Grand Junction, Colo., and Las Vegas, N. M., are points where such arrangements can readily be made, and others may be added, if necessary. But students who desire examinations at these or other points must notify the President at least three weeks in advance of the time of the regular examination.

ADMISSION TO COURSES.

Students will be received into advanced classes on examination in the studies of the preceding year. The Faculty may, at their discretion, receive certificates from other colleges as evidence that the student has satisfactorily pursued these or equivalent studies.

The attention of students who propose to enter the Junior or Senior class is called to the notice at the end of the Elective list (page 28), relative to early application for Electives. Students are expected to register and begin attending their courses at the first exercise of each half-year.

COURSES OF STUDY.

Three courses of study are offered in the College, each subject to considerable variation at the will of the student. The course leading to the degree of Bachelor of Arts corresponds to that which the best Eastern colleges require for the same degree. In the course leading to the degree of Bachelor of Philosophy there is no Greek, and less Latin than in the course for Bachelor of Arts; but the required work of the first two years includes more of Natural Science and Modern Languages. The course leading to the degree of Bachelor of Science is so arranged that special attention may be devoted to any one of five principal lines of study, which give prominence to Mathematics, Physics, Chemistry, Biology and Geology, respectively. A detailed description of these will be found below.

BACHELOR OF ARTS.

FRESHMAN YEAR.

Mathematics.—4 hours in each week, through the academic year. First half-year—Algebra, 4 weeks, Plane Trigonometry, 13 weeks. Second half-year—Algebra, one hour a week, Solid Geometry and Spherical Trigonometry, 3 hours. In place of the last two subjects, Elementary Surveying may be substituted.

German or French.—4 hours through the year; a second year (Course B, see pp. 38, 40) of whichever of these languages the student offered as part of his preparation for college.

English.—2 hours through the year; History of the English Language and Rhetoric (Courses 1 and 2, page 37.)

Greek.—3 hours through the year. First half-year—Selections from the Odyssey or Iliad; reading at sight. Second half-year—Selections from Lysias; History of Greek Oratory; Selections from Herodotus; The Apology and Crito: reading at sight.

Latin.—4 hours through the year. First half-year—Livy, Bk. xxii; Cicero, De Senectute: Latin composition; reading at sight. Second half-year—Tacitus, Dialogus de Oratoribus; Horace, Odes, Bks. i and ii; Latin composition; reading at sight.

SOPHOMORE YEAR.

Latin.—3 hours through the year. First half-year—Vergil, Georgics, Bk, ii; selected letters of Pliny; Latin composition; reading at sight. Second half year—Horace, Epistles, Bk.i; Tacitus, Annals, Bk. i; Latin composition; reading at sight.

English.—First half-year. 2 hours. Applied Rhetoric (Course 3, page 37). Second half-year, 3 hours—American Literature (Course 4, page 37).

Physics.—4 hours through the year, counting as 3 hours (Course A, page 42).

Oratory.—1 hour through the year.

Greek.—First half year, 4 hours—Æschylus, Prometheus Bound; Sophocles, Antigone; History of Greek Tragedy. Second half-year, 4 hours—Euripides, Iphigenia Taurica; Demosthenes, De Corona; reading at sight. Alternative in each half-year with Mathematics.

Mathematics.—First half-year, 4 hours—Analytical Geometry, including the elementary properties of Conics. Second half-year, 3 hours—Analytical Geometry continued. Alternative in each half-year with Greek, but the second half-year of Analytical Geometry cannot be taken without the first. A student may take both Greek and Mathematics, omitting French, German and Zoology, and when this is done in the first half-year he will receive credit on his Junior electives for one hour for half a year.

French or German.—A third year in continuation of the student's previous work in one of these languages, 3 hours through the year; or, at the student's option, a beginning course (German A or French A) of the language not studied in Freshman year, 4 hours through the year, counting as 3 hours. In the second half-year alternative with Zoology.

Zoology.—Second half-year, 3 hours. Alternative with French and German.

JUNIOR YEAR.

Logic and Psychology.—4 hours through the year, including one seminary hour. First 14 weeks, Jevons' Lessons in Logic, with outside reading. Next 4 weeks, Neurology, lectures and laboratory work. Remainder of the year, Psycho-physics, based on Sandford's Handbook, and James' Psychology, Briefer Course, with lectures and outside reading. In the seminary, theses and discussions.

Chemistry.—8 hours through the year; partly laboratory work and partly recitation. (Counts as 4 hours.)

Political Economy.—First half year, 4 hours.

Elective Courses.—Amounting to at least 5 hours in the first half-year and 9 in the second, chosen by the student from the list given on pages 25–28.

History.—Among the electives of Junior or Senior year, the student is required to choose some course or courses in History, amounting to at least 4 hours for one half-year.

SENIOR YEAR.

History of Philosophy and Ethics.—4 hours through the year, including 1 seminary hour. First half-year—History of Philosophy; outside reading, lectures and conferences. Second half-year—Janet's Theory of Morals; outside reading, lectures and conferences. In the seminary of each course, theses and discussions.

Elective Courses.—Amounting to at least 13 hours for the first half-year and 12 hours for the second half-year, chosen by the student from the list on pages 25–28.

BACHELOR OF PHILOSOPHY.

FRESHMAN YEAR.

Mathematics, German or French, English. - The course is the same as that for the degree of Bachelor of Arts.

Latin.—As in the Bachelor of Arts course. Alternative with the French and German named below.

French or German.—4 hours through the year; Course A (see pp. 38, 40) of whichever of these languages was not offered as part of the preparation for college. Alternative with Latin.

Biology.—6 hours through the year; laboratory practice, with additional exercises (readings, etc.), at the discretion of the instructor. (Counts as three hours.)

SOPHOMORE YEAR.

French or German.—4 hours through the year. The student takes whichever of these two languages was not included in his preparation for college; Course A (see pp 38, 40), if he did not have it in Freshman year, otherwise Course B.

Chemistry.—9 hours through the year; laboratory work and recitations. Roscoe's Elements of Chemistry. (Counts as four hours.)

Physics.—In the first half-year, 4 hours, counting as 2; in the second, 5 hours, counting as 3. (Course B, p. 42.)

Oratory.—1 hour, through the year.

Zoology.—Second half-year, 3 hours.

Mathematics.—The same courses in Analytical Geometry are offered as to the A. B. student, occupying 4 hours in the first half-year and 3 hours in the second. But, as an alternative, *Astronomy* may be chosen in the first and *English* in the second half-year.

Astronomy.—First half-year, 4 hours. (Course 13, p. 42.) Alternative with Analytical Geometry.

English.—First half-year, 2 hours—Applied Rhetoric (Course 3, page 37). Second half-year, 3 hours—American Literature (Course 4, page 37). This latter course is alternative with Analytical Geometry to students who have taken the Mathematics of the first half-year, but those who elect Analytical Geometry in the second half-year will be required to include American Literature among the electives of Junior or Senior year.

JUNIOR YEAR.

Logic and Psychology and Political Economy.—The requirements in these branches are the same as in the A. B. course.

Geology.—4 hours through the year. Scott's Introduction to Geology; Le Conte's Elements of Geology; field excursions.

Electives.—Amounting to 5 hours in the first half-year and 9 in the second.

SENIOR YEAR.

The requirements are the same as those in the Bachelor of Arts course above.

History.—In Junior or Senior year, the student in this, as in the A. B. course, will choose among his electives as much as four hours of History for one half-year.

ELECTIVE STUDIES FOR JUNIORS AND SENIORS IN THE A. B. AND PH. B. COURSES.

The following Electives, though intended primarily for A. B and Ph. B. students, are also open to students taking the S. B. course. The Electives more especially designed for the latter course will be found on pp. 29-30, under the various subdivisions of the S. B. work. Unless otherwise stated, each Elective Study continues through the year, and is open to both Seniors and Juniors.

PHILOSOPHY.—(Page 31.)

Hours per week.
2 *Modern German Philosophy*; first half-year.
2 *The Philosophic Movement in England*; second half-year.
2 *Advanced Logic*; second half-year.
2 *Lotze*; second half-year.
1 *Seminary in Social Ethics*; second half-year.
1 *Seminary in Greek Philosophy*; one half-year.

PEDAGOGY.—(Page 33.)

2 *History and Philosophy of Education;* first half-year.
2 *School Hygiene and Child Study;* second half-year.
1 *Original Observations.*
1 *Pedagogical Seminary.*

MATHEMATICS AND ASTRONOMY.—(Page 40).

4 *Calculus*, Differential and Integral (Course 8).
4 *Analytical Geometry* (Courses 6 and 7), while forming part of the regular Sophomore work for some students, is offered as a Junior or Senior elective to the others. First half-year.
4 *Projective Geometry* (Course 9).
2 *History of Mathematics* (Course 10). Second half-year.
3 *Higher Algebra and Higher Plane Curves* (Course 11).
4 *Astronomy*, Elementary (Course 13). See the above remark under Analytical Geometry. First half-year.

Hours per week.

2 *Astronomy.* Observatory work with problems in Mathematical Astronomy (Part of Course 14). Second half-year.

CHEMISTRY.—(Page 43).

4 *General and Applied Chemistry.* Sophomore (Ph. B.) Chemistry prerequisite.

4 *Chemical Analysis*, Qualitative.

4 *Chemical Analysis*, Quantitative. Qualitative Analysis prerequisite.

3 *Theoretical Chemistry.* Sophomore (Ph. B.) Chemistry prerequisite.

PHYSICS.—(Page 42.)

2 *Applications of Electricity* (Course D).

2 *Theory of Light* (Course F).

2 *Advanced Laboratory Practice* (Course E).

BIOLOGY.—(Page 46.)

3 *Zoology;* second half-year. (Elective to A. B. students.)

3 *Comparative Anatomy;* first half-year. Zoology prerequisite

GEOLOGY.—(Page 48.)

4 *Inorganic Geology;* first half-year. (A. B. elective)

4 *Organic Geology;* second half-year. (A. B. elective.)

3 *Paleontology;* second half-year. Zoology prerequisite.

ECONOMICS.—(Page 49.)

3 *Public Finance;* second half-year.

2 *Money and Banking;* first half-year.

2 *Railroads;* second half-year.

2 *Socialism;* second half-year.

POLITICS.—(Page 50.)

3 *Historical Politics;* first half-year.

3 *Comparative Politics and Constitutional Law;* second half-year.

1 *International Law;* first half-year.

HISTORY.—(Page 51.)

4 *English History;* first half-year.

4 *United States History;* second half-year.

2 *History of the Middle Ages;* first half-year.

2 *History of the Renaissance;* second half-year.

ENGLISH.—(Page 37.)

3 *American Literature;* second half-year.

3 *Early English Literature;* first half-year.

3 *Elizabethan Drama;* second half-year.

Hours per week.

3 *English Poetry, Dryden to Wordsworth;* first half-year. Open to Seniors.

3 *English Prose, Bunyan to De Quincey;* second half-year. Open to Seniors,

2 *Victorian Literature;* first half-year. Open to Seniors.

3 *Anglo-Saxon;* first half-year.

GREEK.—(Page 34.)

2 *Greek History;* one half-year.

2 *Greek Philosophy;* one half-year.

2 *Greek Oratory;* one half-year.

2 *Greek Epic and Lyric Poetry;* one half-year.

LATIN.—(Page 35.)

2 *Roman Dramatic Poetry;* one half-year.

2 *Roman Lyric and Elegiac Poetry;* one half-year.

2 *Roman Satiric and Epigrammatic Poetry;* one half-year.

2 *Roman History;* one half-year.

2 *Roman Philosophy;* one half-year.

2 *Roman Life from Original Sources;* one half-year.

2 *Advanced Latin Composition;* one half-year.

GERMAN.—(Page 38.)

2 *Schiller and Goethe* (German C); first half-year.

2 *Lessing and Goethe* (German D); second half-year.

1 *History of German Literature* (German E).

2 *The Nibelungenlied, etc.*, (German F).

3 *Middle High German* (German G); one half-year.

2 *Gothic* (German H).

2 *Faust* (German I).

2 *Poetry of Goethe and Schiller* (German K).

FRENCH.—(Page 40.)

2 *Racine and Corneille* (French C); first half-year.

2 *Racine, Corneille and Victor Hugo* (French D); second half-year.

2 *History of French Literature* (French E).

2 *Rousseau* (French F).

SPANISH.—(Page 40.)

2 *Elementary Course* (Spanish A).

2 *Castelar and Cervantes* (Spanish B).

PUBLIC SPEAKING.—(Page 52.)

2 *Oratory.*

2 *Extemporaneous Speaking.*

2 *Forensics.*

BIBLE STUDY.—(Page 52.)

THEORY OF MUSIC.—(Page 73.)

Hours per week.

2 *Harmony.*

2 *Counterpoint.*

HISTORY OF ART.

1. *Greek and Roman Architecture and Sculpture;* second half-year.

A student for any degree is usually permitted, further, to take as an elective any study required for another degree that does not appear in the course required for his own degree, and that does not introduce a conflict of hours. But, for this purpose, French A counts as three hours only, German A as four hours.

Seniors and Juniors should mail their choice of electives to the Dean of the Faculty, Atherton Noyes, Colorado Springs, in time to be received not later than September 9, 1898. The hours for electives (other than Senior and Junior English, which are included in the schedule on pp. 56–57), will then be assigned and electives for which no application has been received may be withdrawn When new electives are chosen at mid-year, the Dean should be notified at least three days before the first recitation of the course.

BACHELOR OF SCIENCE.

The studies which are required of all candidates for the degree of Bachelor of Science are as follows:

FRESHMAN YEAR.

English.—As in the Freshman year of the A. B. course. 2 hours.

Biology.—As in the Freshman year of the Ph. B. course. (Counts as 3 hours).

French B.—First half-year, 4 hours; second half-year, 2 hours.

Chemistry.—As in the Sophomore year of the Ph. B course. 9 hours of recitation, lectures and laboratory work. (Counts as 4 hours).

Analytical Geometry.—First half-year, 4 hours; second half-year, 3 hours. The same course which is offered to the election of A. B. students in Sophomore year.

Mechanics.—Second half-year, 3 hours.

SOPHOMORE YEAR.

English.—As in the Sophomore year of the A. B. course. First half-year, 2 hours; second half-year, 3 hours.

Physics.—Course C, page 42. 6 hours. (Counts as 4 hours.)
German.—First half-year, 4 hours; second half-year, 3 hours.
Mechanical Drawing.—First half-year, 5 hours. (Counts as 2 hours.)
Oratory.—1 hour through the year.
Zoology.—As in the Sophomore year of the Ph. B. course. Second half-year, 3 hours.
Additional Requirement.—See below.

JUNIOR YEAR.

Logic and Psychology.—As in the Junior year of the A. B. course. 4 hours.
Geology.—As in the Junior year of the Ph. B. course. 4 hours.

SENIOR YEAR.

History of Philosophy and Ethics.—As in the Senior year of the A. B. and Ph. B. courses. 4 hours.
History.—In Junior or Senior year sufficient History must be included among the studies elected to amount to 4 hours for one half-year.

In the Freshman year the required studies tabulated above will occupy the entire time of the student. In the three succeeding years other required studies, differing according to the nature of the course selected, must be added to those above named; and still other studies are offered in each department as elective. The student will choose so many of the latter as will make, together with the studies required of all S. B. candidates and those required for the course he selects, sixteen or seventeen hours of recitation per week. The student's choice of electives is not limited to those offered in the department to which his principal studies belong: but he may take in place of them, so far as not prevented by conflict of hours, any branch which is a required study for any of the college courses, or any elective study in which a class may have been formed by students taking other courses than his own, whether leading to the degree of S. B. or to other degrees; provided, however, that the general scientific character of his course be maintained to the satisfaction of the Faculty.

ADDITIONAL REQUIREMENTS AND ELECTIVES.

COURSE IN PURE MATHEMATICS AND ASTRONOMY.

Sophomore Year.—Calculus (required); 4 hours.

Junior Year.—Physics E (required); 2 hours a week. Astronomical Observations and Computations (elective); second half-year, 4 hours. Higher Algebra and Plane Curves (elective); 3 hours. History of Mathematics (elective); second half-year, 2 hours. Projective Geometry (elective); one half-year, 4 hours.

Senior Year.—(In addition to the foregoing elective studies.) Mathematical Astronomy (elective); 2 hours. Differential Equations (elective); one half-year, 3 hours.

COURSE IN PHYSICS.

Sophomore Year.—Calculus (required); 4 hours.

Junior Year.—Physics D (required); 2 hours. Physics E (required); 2 hours. Analytical Mechanics (elective); 2 hours. Astronomical Observations and Computations (elective); second half-year, 4 hours.

Senior Year.—Physics F (required); 2 hours. Differential Equations (elective); 3 hours, one half-year.

COURSE IN CHEMISTRY.

Sophomore Year. Qualitative Analysis (required); 4 hours.

Junior Year.—Quantitative Analysis (required): 4 hours. Organic Chemistry (required); second half-year, 3 hours.

Senior Year.—Advanced General and Applied Chemistry (required); 4 hours. Theoretical Chemistry (elective); 3 hours.

COURSE IN BIOLOGY.

Sophomore Year.—Cryptogamic Botany (required); first half-year, 3 hours.

Junior Year.—Comparative Anatomy of Invertebrates (required); 3 hours.

Senior Year.—Comparative Anatomy of Vertebrates (required); first half-year, 3 hours. Comparative Embryology (required); second half-year, 3 hours.

COURSE IN GEOLOGY.

Sophomore Year.—Mineralogy (required); first half-year, 3 hours

Junior Year.—Lithology (required); first half-year, 3 hours. Invertebrate Paleontology (required); second half-year, 3 hours.

Senior Year.—Economic Geology (required); first half-year, 3 hours. Vertebrate Paleontology (required); second half-year, 3 hours.

Some of the studies offered as elective in this scheme can be taken only by students who have previously completed certain antecedent studies. Such relation between different courses, when not clearly indicated in the preceding table, may be learned either from the following detailed accounts of the work of the several departments, or from the instructors.

DEPARTMENTS OF INSTRUCTION.

A more detailed account of the different branches of study included in the College curriculum will be found below:

PHILOSOPHY.

This course extends over the whole of the Junior and Senior years, and gives the student a knowledge of the development of thought in the several departments of Philosophy. The various Seminary courses afford valuable training in the study and discussion of important psychological, sociological, and ethical questions.

1. LOGIC.—Jevons' Elementary Lessons, used as a basis for lectures, recitations and discussions. Regular courses of outside reading required, and a thesis upon the origin and development of language. Four hours, 14 weeks at the beginning of the year.—DR. LANCASTER.
2. NEUROLOGY.—Whitaker, Anatomy of the Brain and Spinal Cord. Laboratory and microscopic work. Preparation of a brain and sections for study. Four hours, four weeks.—DR. LANCASTER.
3. PSYCHOLOGY.—James' Psychology, Briefer Course. Psycho-physics, based on Sanford's Handbook, lectures, recitations and experiments. Four hours the remainder of the year.—PRESIDENT SLOCUM and DR. LANCASTER.

Lectures:

(*a*.) Introductory series.—PRESIDENT SLOCUM.

(*b*.) Psycho-physics.—PRESIDENT SLOCUM.

(*c*.) The Anatomy of the Brain; Microscopic Analysis of Nervous Tissues.—DR. LEONARD FREEMAN.

(*d*.) Localization of General Cerebral Functions.—DR. H. T. PERSHING.

(*e*.) The Psychology of Speech.—DR. H. T. PERSHING.

(*f*.) Physical basis of the Higher Mental Faculties.—DR. H. T. PERSHING.

(*g*.) Hysteria and Hypnotism.—DR. H. T. PERSHING.

(*h*.) Some Phenomena in States of Disturbed Consciousness.—DR. J. T. ESKRIDGE.

(*i*.) Physiological Psychology.—DR. G. B. WEBB.

4. Psychological Laboratory.—Opportunity will be afforded for the conducting of experiments in special lines.

5. Psychological Seminary.—The leading subjects in Modern Psychology. Theses and Discussions. Study of the following subjects: The Relations of Mind and Body; Double Consciousness; Animal Psychology; The Psychology of Defectives; Mental Evolution in Man; Unconscious Cerebration; Diseases of the Memory; Diseases of the Will; Dreams; The Psychology of Music; Hallucinations; Power of Suggestion; Aphasias; Muscle Memory; Psychology of Fear; Hypnotism; Sanity and Insanity; Genius. Each student is also required to select some one subject for independent study and investigation during the year. One hour.—Dr. Lancaster.

6. History of Philosophy.—Lectures, recitations and conferences. Four hours.—President Slocum.

   Lectures:

   (*a.*) Study in Comparative Religions.—President Slocum.

   (*b.*) Greek Philosophy. Twenty lectures.—Pres. Slocum.

   (*c.*) Modern Philosophy. Fifteen lectures.—Pres. Slocum.
   (1) The Rise and Fall of Scholasticism; (2) The Beginnings of Modern Philosophy-Bacon and Descartes; (3) Spinoza; (4) Locke; (5) The Sceptical Movement in France; (6) Leibnitz; (7) Berkeley; (8) Hume; (9) Kant, the Critique of Pure Reason; (11) Kant, the Transcendental Element in his Philosophy; (12) Hegel; (13) Schopenhauer; (14) Lotze; (15) Spencer—The Philosophy of Evolution.

   These lectures will be followed by a series of conferences, conducted by President Slocum.

7. Metaphysical Seminary.—One hour.—President Slocum.

   Presentation of papers and discussion of the following subjects:

   (*a.*) The Great Religions of the World.

   (*b.*) The Psychological Basis of Religious Faith.

   (*c.*) The Psychological Basis of Aesthetics.

   (*d.*) Philosophical Thought in England during the Nineteenth Century.

   (*e.*) Evolution: its History, Development and Results.

8. Ethics.—Janet's Theory of Morals. Lectures, theses and discussions. Four hours.—President Slocum.

Lectures:

- (*a.*) The Fundamental Principles of Ethics. Twelve lectures.—PRESIDENT SLOCUM.
- (*b.*) The Ethical Teaching of the Old Testament. Three lectures.—REV. JAMES B. GREGG, D. D.
- (*c.*) Christian Ethics. Three lectures.

9. ETHICAL SEMINARY.—One hour.—PRESIDENT SLOCUM.

Presentation of papers and discussions upon the following subjects:

- (*a.*) Modern Social and Sociological Problems.
- (*b.*) The Ethical View of Citizenship.
- (*c.*) A Study of Educational Theories from an Ethical Standpoint.

10. ELECTIVE COURSES:

- (*a.*) Modern German Philosophy. First half of Senior year. Two hours.—PRESIDENT SLOCUM.
- (*b.*) The Philosophical Movement in England. Second half of Senior year. Two hours.—PRESIDENT SLOCUM.
- (*c.*) Advanced Logic. Second half-year. Two hours.—PRESIDENT SLOCUM.
- (*d.*) Lotze. Second half-year. Two hours.—PRESIDENT SLOCUM.
- (*e.*) Seminary in Social Ethics.—The Labor Question, Temperance, Pauperism and other social problems considered from an ethical standpoint. One hour, second half-year.
- (*f.*) Seminary in Greek Philosophy. One hour, one half-year.

PEDAGOGY.

1. *History and Philosophy of Education*—First half-year. 2 hours, elective. Special attention to the recent educational developments in Europe and America. Study of educational reformers, school systems and curricula. Lectures, reading and conferences.—DR. LANCASTER.

2. *School Hygiene and Child Study*—Second half-year. 2 hours, elective. Hygiene of the senses, fatigue, child and adolescent psychology, problems of the school-room and of practical teaching. Lectures, reading and discussion.—DR. LANCASTER.

3. *Original Observations in Psychological and Pedagogical Fields of Study.* 1 hour through the year.—Dr. Lancaster.
4. *Pedagogical Seminary*—1 hour through the year. Reports and discussions of research work.—Dr. Lancaster.

Courses 1, 2, and 3 may be taken by correspondence.

GREEK.

The studies in this department are prescribed for all candidates for the degree of Bachelor of Arts in the Freshman year, and are elective for the remainder of the College course.

The course is so arranged as to give the student an introduction to the several great departments of Greek Literature, and each author is studied from the literary as well as from the linguistic side. Particular care is taken to have the student acquire facility in reading Greek, and great stress is laid, throughout the course, on reading at sight.

FRESHMAN YEAR.

1. *Homer*--Selections from the Odyssey and Iliad in the original, and all the poems in translation; three hours, first half-year.

2. *Lysias*—Selections; History of Greek Oratory. *Plato*, Apology and Crito; three hours, first half-year. *Herodotus*, Selections; 3 hours, second half-year.

SOPHOMORE YEAR.

1. *Æschylus and Sophocles*--One play from each author in Greek, and all the plays in English. Four hours, first half-year.

2. *Euripides*—Two plays in Greek, and the most important remaining plays in English. Four hours, second half-year.

Candidates for the A. B. degree may substitute Analytical Geometry, either for both these courses or for that of the first half-year.

ELECTIVE.

1. Greek History.—*Herodotus;* careful study of the period of the Persian Wars. Readings from the dramatists for further illustration of the life of the period. *Thucydides*, the Sicilian Expedition. Parallel readings in Curtius, Grote, and other modern historians. Selections from Plutarch's Lives. Two hours, first half-year. Or—

2. Greek Philosophy.—*Plato*, Phaedo. Selections from other dialogues, and from the works of *Xenophon*. Zeller's Socrates and the Socratic Schools; Plato and the Older Academy: Stoics, Epicureans and Sceptics. Wallace's Aristole. Two hours, first half-year.

3. Greek Oratory.—*Lysias* and *Demosthenes*, with selections from the other Attic Orators from Antiphon to Lycurgus. Two hours, second half-year. Or—

4. Greek Epic and Lyric Poetry.—*Homer*, *Hesiod* and *Pindar*,

---

Incoming Students

Will be met at the trains and assisted in finding rooms and making other preliminary arrangements. The students who render this service will wear the College ribbons, black and gold.

Look for the Black and Gold at the Depot.

Intending students will confer a favor by sending their names and time of arrival in Colorado Springs to Miss H. DeBusk ['99], Trinidad, Colo. or Mr. L. M. McLean, Jr. ['99], 750 Equitable Building, Denver, who will gladly give any desired information concerning student life in the College and Academy.

---

years, Latin prose composition.

FRESHMAN YEAR.

First Half—Livy, Book XXII; Cicero, De Senectute.
Second Half—Tacitus, Dialogus de Oratoribus: Horace, Odes I, II.
Four hours a week through the year.

SOPHOMORE YEAR.

First Half—Vergil, Georgics II; Pliny, Selected Letters.
Second Half—Horace, Epistles I: Tacitus, Annals I.
Three hours a week through the year.

JUNIOR AND SENIOR YEARS—ELECTIVE.

(*a.*) Roman Dramatic Poetry.—History and characteristics of Roman Tragedy and Comedy. Fragments of *Naevius*, *Ennius*, *Pacuvius*, *Attius*, *Caecilius Statius*, *Titinius*, *Afranius*, *Laberius*, *Publilius Syrus*, etc., (Ribbeck's Scenicæ Romanorum Poesis Fragmenta.)

3. *Original Observations in Psychological and Pedagogical Fields of Study.* 1 hour through the year.—DR. LANCASTER.

4. *Pedagogical Seminary*—1 hour through the year. Reports and discussions of research work.—DR. LANCASTER.

Greek, and all the plays in English. Four hours, first half-year.

2. *Euripides*—Two plays in Greek, and the most important remaining plays in English. Four hours, second half-year.

Candidates for the A. B. degree may substitute Analytical Geometry, either for both these courses or for that of the first half-year.

ELECTIVE.

1. GREEK HISTORY.—*Herodotus;* careful study of the period of the Persian Wars. Readings from the dramatists for further illustration of the life of the period. *Thucydides*, the Sicilian Expedition. Parallel readings in Curtius, Grote, and other modern historians. Selections from Plutarch's Lives. Two hours, first half-year. Or—

2. GREEK PHILOSOPHY.—*Plato*, Phaedo. Selections from other dialogues, and from the works of *Xenophon*. Zeller's Socrates and the Socratic Schools; Plato and the Older Academy; Stoics, Epicureans and Sceptics. Wallace's Aristole. Two hours, first half-year.

3. Greek Oratory.—*Lysias* and *Demosthenes*, with selections from the other Attic Orators from Antiphon to Lycurgus. Two hours, second half-year. Or—

4. Greek Epic and Lyric Poetry.—*Homer*, *Hesiod* and *Pindar*, with selections from the Anthology. Two hours, second half-year.

LATIN.

The study of Latin extends throughout the four years of the College course. It is obligatory in the Freshman and Sophomore years upon candidates proceeding to the degree of Bachelor of Arts, while students in the Bachelor of Philosophy course may choose it as an alternative to French or German in the Freshman year. In the Junior and Senior years a choice of Electives is offered.

The aim of the department is to develop the power of reading Latin with some facility, to secure a thorough knowledge of the mechanism of the language, to stimulate the appreciation of Latin literature, and to give a general acquaintance with the history, antiquities, and character of the Roman people.

Much stress is laid upon sight translation and Latin prose composition. Instruction is given mainly by recitations; but these are supplemented by occasional lectures and, in the last two years, by Seminary work.

The following are the texts at present prescribed as the basis of instruction; to which must be added, in all the years, sight translation from authors not specified, and, in the Freshman and Sophomore years, Latin prose composition.

FRESHMAN YEAR.

First Half—Livy, Book XXII; Cicero, De Senectute.
Second Half—Tacitus, Dialogus de Oratoribus; Horace, Odes I, II.
Four hours a week through the year.

SOPHOMORE YEAR.

First Half—Vergil, Georgics II; Pliny, Selected Letters.
Second Half—Horace, Epistles I; Tacitus, Annals I.
Three hours a week through the year.

JUNIOR AND SENIOR YEARS—ELECTIVE.

(*a*.) Roman Dramatic Poetry.—History and characteristics of Roman Tragedy and Comedy. Fragments of *Naevius*, *Ennius*, *Pacuvius*, *Attius*, *Caecilius Statius*, *Titinius*, *Afranius*, *Laberius*, *Publilius Syrus*, etc., (Ribbeck's Scenicæ Romanorum Poesis Fragmenta.)

Plautus, Menæchmi, Aulularia; *Terence*, Adelphi; *Seneca*, Troades. Parallel readings in English literature. One half-year, two hours.

(*b.*) ROMAN LYRIC AND ELEGIAC POETRY.—Sources, development and characteristics of Lyric and Elegiac Poetry in Rome. Fragments of *Calvus* (Lachmann); *Catullus*, Selections (Simpson); *Vergil*, Copa; *Horace*, Odes, III, IV; *Tibullus*, Selections (Ramsay); *Propertius*, Selections (Ramsay); *Ovid*, Selections (Ramsay); *Statius*, selections from the Silvae. Discussion of questions in literature and criticism. One half-year, two hours.

(*c.*) ROMAN SATIRIC AND EPIGRAMMATIC POETRY.—History and characteristics of Roman Satire. Fragments of *Lucilius* (Lucilii Saturarum Reliquiæ, Müller); *Varro* (Bücheler); *Horace*, Satires, Book II; *Persius*, I, II, V; *Petronius* (Bücheler); *Sulpicia; Juvenal*, I, IV, VIII; *Martial*, Selections (Stephenson) Parallel studies in English literature. One half-year, two hours.

(*d.*) ROMAN HISTORY.—Roman conceptions of the Philosophy of History. The Early Historians (Peter's Veterum Historicorum Romanorum Reliquiæ). *Cæsar*, Selections from Books VI, VII; *Sallust*, Catiline; *Livy*, Selections from Books I, IX, XXI; *Tacitus*, Annals XIV, XV, Histories V. Short studies in *Nepos*, *Velleius Paterculus*, *Valerius Maximus*, *Quintus Curtius*, *Suetonius*. Discussion of various historical problems. One half-year, two hours.

(*e.*) ROMAN PHILOSOPHY.—History and aspects of Philosophy in Rome. Stoics, Epicureans, Sceptics and Eclectics *Lucretius*, Selections from De Rerum Natura; *Cicero*, De Finibus I, De Officiis I, De Natura Deorum III; *Seneca*, De Providentia Liber. Levin's Lectures on the Philosophy of Cicero; Mayor's Ancient Philosophy; Martha's Les Moralistes sous l'Empire Romain; Farrar's Seekers after God. Influence of Philosophy on Roman life and literature. One half-year, two hours.

(*f.*) ROMAN LIFE FROM ORIGINAL SOURCES.—A study of manners, morals, politics and religion at Rome under the late Republic and the Empire. *Cicero*, Select Letters (Abbott); *Pliny*, Select Letters (Church and Brodribb); *Petronius*, Cena (Friedländer); *Martial*, Selections from the Epigrams (Morgan). Boissier's Cicéron et ses Amis; Church's Roman Life in the days of Cicero; Inge's Society in Rome under the Caesars; Thomas' La Société Romaine d'après Pétrone; Becker's Gallus One half-year, two hours a week.

(*g.*) ADVANCED LATIN COMPOSITION.—Ciceronian, Caesarian, Livian and Tacitean styles. Reading of standard prose authors and imitative translation of similar passages from English. Bradley's

Aids to Writing Latin Prose: Ramsay's Latin Prose Composition; Sargent and Dallin's Materials and Models for Latin Prose Composition. Original theses in Latin. One half-year, two hours.

Although the elective course in Composition may be taken by itself, it is recommended that it be chosen in connection with one of the reading courses, the two running concurrently for two hours a week through the year.

ENGLISH.

The following courses are offered:

1. *History of the English Language.*—One-half of the first half-year, two hours. Required of Freshmen. Emerson's A Brief History of the English Language, Parts I-IV.

2. *Advanced Rhetoric.*—Remainder of the year, two hours. Required of Freshmen. Genung's Rhetoric and Rhetorical Analysis. Essays.

3. *Applied Rhetoric.*—Composition work, with constant reference to Genung's Rhetoric. Frequent themes in and out of the class room. First half-year, two hours. Required of Sophomores.

4. *American Literature.*—Authors studied: Irving, Cooper, Poe, Bryant, Hawthorne, Longfellow, Emerson, Thoreau, Lowell, Holmes, Whittier. Essays. Second half-year, three hours. Required of Sophomores (except as stated on page 24). Open to Juniors and Seniors.

5. *Early English Literature.*—From the Anglo-Saxon Conquest to Milton, inclusive. Brooke's English Literature used as an outline. The principal literature of the early periods read rapidly, and Chaucer, Spenser, Bacon and Milton studied carefully. Essays. First half-year, three hours. Elective for Juniors and Seniors.

6. *The Elizabethan Drama.*—Marlowe, Ben Jonson, Beaumont and Fletcher, Webster, studied with Thayer's Best Elizabethan Plays. The larger part of the half-year devoted to Shakespeare. The principal plays read rapidly, with special attention to the development of the author's genius. Essays. Second half-year, three hours. Elective for Juniors and Seniors.

7. *English Poetry.*—From Dryden to Wordsworth. Authors studied: Dryden, Pope, Thomson, Gray, Cowper, Burns, Scott, Byron, Moore, Shelley, Keats, Coleridge, Southey, Wordsworth. Each student writes an exhaustive essay on one author for criticism by the class. First half-year, three hours. Elective for Seniors.

8. *Victorian Literature.*—Authors studied: Carlyle, Tennyson, Newman, Arnold, Ruskin, Robert Browning. Essays. First half-year, two hours. Elective for Seniors.

9. *English Prose.*—From Bunyan to DeQuincey. Authors studied: Bunyan, Addison, Swift, Johnson, Goldsmith, Burke, Macaulay, Lamb, DeQuincey. Each student writes an exhaustive essay on one author for criticism by the class Second half-year, three hours. Elective for Seniors.

10. *Anglo-Saxon.*—Bright's Anglo-Saxon Reader and the Sievers-Cook Old English Grammar. The course undertakes to provide a foundation for thorough work in the English Language and English Literature. Lectures on Anglo-Saxon Literature. First half-year, three hours. Elective for Juniors and Seniors.

DEPARTMENT OF MODERN LANGUAGES.

GERMAN LANGUAGE AND LITERATURE.

German A:

Elementary Course—Joynes-Meissner's Grammar. Anderson's Maerchen; Storm, Immensee; Hauff, Das Kalte Herz, Die Karavane; Eichendorff, Aus dem Leben eines Taugenichts. Four hours through the year.

German B:

Intermediate Course—Riehl, Fluch der Schoenheit; Jensen Die braune Erica; Chamisso, Peter Schlemihl; Heine, Harzreise; Gerstaecker, Germelshausen; Lessing, Minna von Barnhelm; Schiller, Wilhelm Tell, Lyrics and Ballads. Von Jagemann's Prose Composition and Syntax. Four hours through the year.

German C:

Schiller, Maria Stuart, Die Jungfrau von Orleans; Goethe, Egmont; Sime's Life of Goethe. Two hours, first half-year.

German D:

Lessing, Emilia Galotti, Nathan der Weise; Rollestone's Life of Lessing; Goethe, Iphigenie. Two hours, second half-year.

German E:

An Outline of the History of German Literature. This course is conducted in English, and is open to all college students whether they are taking German or not. Kuno Francke's Social Forces in German Literature will be used as a text-book. This reading will be supplemented by twelve lectures by the instructor. One hour through the year.

GERMAN F:

The Nibelungenlied and the Classic Period of the Twelfth century. Hartmann von Aue, Wolfram von Eschenbach, Gottfried von Strassburg. Lectures and collateral reading. Two hours through the year.

*GERMAN G:

Middle High German—Braune-Paul's Mittelhochdeutsche Grammatik; Nibelungenlied; Kudrun; Walter von der Vogelweide. Three hours, one half-year; a fourth hour at the discretion of the instructor.

*GERMAN H:

Gothic—Braune's Gotische Grammatik; Heyne's Ulfilas. Two hours through the year.

GERMAN I:

The Faust-legend and its Development, and Goethe's Faust.

Synopsis of the Course:

CHAPTER I. Kindred Legends before the 16th Century. (*a.*) Simon Magus. (*b.*) Ahasverus. (*c.*) Anthemios, Proterius and Theophilus. (*d.*) Cyprianus Antiochus. (*e.*) Tannhaeuser and Don Juan.

CHAPTER II. The historic Faust; the "Faustbuch" of 1587 and its development; the "Puppenspiele."

CHAPTER III. Faust Dramas before the 18th Century.
(*a.*) Calderon's El Magico Prodigioso.
(*b.*) Marlowe's Tragical History of Doctor Faustus.

CHAPTER IV. Faust in the 18th Century.
Lessing's Fragment; Maler Mueller, Klinger, etc.

CHAPTER V. Goethe's Faust.
(*a.*) The "Urfaust."
(*b.*) Faust, Part I, 1808.
(*c.*) Faust, Part II.

This course is conducted entirely in German. The class meets once a week. Open to the public.

GERMAN K:

The Poems of Goethe and Schiller. This course is conducted entirely in German. The class meets once a week,—session one and a half hours. Open to the public.

---

*German G and H are given in alternate years.

FRENCH LANGUAGE AND LITERATURE.

French A:

Elementary Course—Edgren's French Grammar; Super's Reader; About, Le Roi des Montagnes; Halévy, L'Abbé Constantin. Reading at sight. Four hours through the year.

French B:

Intermediate Course—Chassang's Grammaire Française, Cours moyen. Dictation. Sandeau, Mlle de la Seiglière; George Sand, La Mare au Diable; Corneille, Le Cid, Horace; Racine, Andromaque, Athalie; Molière, Le Bourgeois Gentilhomme, Les Précieuses Ridicules, L'Avare; Bowen's French Lyrics; La Fontaine, Fables. Modern prose writers. Four hours through the year.

French C:

Racine, Athalie, Andromaque, Phèdre, Les Plaideurs; Corneille, Le Cid, Cinna, Polyeucte. Two hours, first half-year.

Frrnch D:

Racine, Esther, Brittanicus; Corneille, Le Menteur, Horace; Molière, Le Tartuffe, Les Femmes Savantes; Victor Hugo, Hernani. Two hours, second half-year.

French E:

History of French Literature—Lectures and collateral reading. Two theses. Two hours through the year.

French F:

A special study of Jean Jacques Rousseau, and a comparison between Rousseau and Byron. Two hours through the year.

SPANISH LANGUAGE AND LITERATURE.

Spanish A:

Elementary Course—Monsanto and Anguellier, A Practical Course in the Spanish Language. Conversation during the second half year. Two hours through the year.

Spanish B:

Extracts from the writings of Castelar, Selgas, Valera, Sista, and Cervantes. Composition. Two hours through the year.

MATHEMATICS AND ASTRONOMY.

The courses offered in this department include the following subjects:

1. *Algebra.*—Series; the Binominal Theorem; Exponential and Logarithmic Series; Numerical Equations of any Degree. Four hours

a week for four weeks at the beginning of the first half-year, one hour a week through the second half-year.

2. *Plane Trigonometry.*—The functions of one and two angles; the solution of triangles; simple applications. Thirteen weeks of the first half-year, four hours a week.

3. *Solid Geometry.*—Planes and Lines in Space; Polyhedra; the Cylinder, Cone and Sphere. Ten weeks at the beginning of the second half year, three hours. (Alternative with Course 5 below.)

4. *Spherical Trigonometry.*—With simple applications. Seven weeks, three hours. (Alternative with Course 5.)

5. *Elementary Surveying.*—Field work and computation. (Alternative with Courses 3 and 4 above.) Second half-year, three hours.

The foregoing, for students in the A. B. and Ph. B. courses, complete the requirement in pure mathematics, and are all contained in the work of Freshman year. Candidates for the degree of S. B. must present these subjects (except Course 5) as part of their preparation for college. (See p. 19.) Course 2 is essential, and 1, 3, and 4 are very useful in the study of any of the following:

6. *Analytical Geometry* (*Elementary*).—Plane Loci of first and Second Order. First half-year, four hours. Required of Freshmen in the S. B. course. For Sophomores in the A. B. course, alternative with Greek; in the Ph. B. course, with Astronomy, (Course 13 below.)

7. *Analytical Geometry* (*continued*).—More thorough study of plane loci, with the elements of the tridimensional geometry. Second half-year, three hours. Required of Freshmen in the S. B. course. For Sophomores in the A. B. course, alternative with Greek; in the Ph. B., with American Literature. (Course 6 prerequisite.)

8. *Calculus, Differential and Integral.*—Required in some of the courses leading to the degree of S. B., elective in others. (See pp. 29, 30.) Elective to Juniors and Seniors in the A. B. and Ph. B. courses. Course 6 prerequisite. The course continues through a whole year; but where it is elective, the first half-year may be taken without the second. Four hours.

9. *Projective Geometry.*—Second half-year, four hours. Elective in the S. B. course and to Juniors and Seniors in the A. B. and Ph. B. courses.

10. *History of Mathematics.*—Cajori's History of Elementary Mathematics, with selections from his larger work. Second half-year, two hours. Elective.

11. *Higher Algebra and Higher Plane Curves.*—(Selections from Salmon's works). Course 7 prerequisite. Three hours through the year. Elective.

12. *Differential Equations.*—Three hours, one half-year.

13. *Astronomy* (*Elementary*).—Required in some of the courses leading to the degree of the S. B., in Junior year. To Ph. B. Sophomores, alternative with Analytical Geometry (Course 6 above). Elective to Juniors and Seniors. First half-year, four hours. The descriptive, rather than the mathematical side of astronomy, is emphasized, and the work conducted chiefly in the form of recitations from a text-book.

14. *Astronomy* (*Observations and Computations*).—The student is expected to make free use of the telescope. Second half-year, four hours. This course, for S. B. students, is in continuation of the preceding. It is also elective to Juniors and Seniors in the A. B. and Ph. B. courses, but the above (Course 13) is ordinarily prerequisite.

15. *Mathematical Astronomy.*—Planetary Orbits, etc. Two hours. Elective to S. B. students in Senior year.

PHYSICS.*

PHYSICS A:

Required for the degree of A. B. This is a general course taught by text-book and informal lectures. A prominent feature of the course is laboratory practice, consisting largely of measurements. Three hours through the year.

PHYSICS B:

Required for the degree of Ph. B. This is a laboratory course on measurements, for students who already have had an elementary course in Physics. To insure the mastery of the theory, the student is expected to consult works on Physics in connection with each experiment. Two hours, first half-year; three hours, second half-year.

PHYSICS C:

Required for the degree of S. B. This general course is given to students who have had courses in elementary physics and in mechanics. The laboratory work is substantially the same as in *Physics B.* The class work embraces Heat, Sound, Light, Electricity and Magnetism. Four hours through the year.

PHYSICS D:

Applications of Electricity.—Two hours through the year. Elective.

---

*Plane Trigonometry is a prerequisite for all college courses in Physics.

PHYSICS E:

More advanced laboratory practice. The list of experiments includes the standardizing of galvanometers, the determination of permeability and hysteresis curves for iron, the determination of coefficients of self-induction and mutual induction, the measurement of the sensibility of a balance, of the acceleration of gravity, etc. Two hours through the year. Elective.

PHYSICS F:

More advanced course on Light, or on Electricity and Magnetism. Two hours for one year. Elective. Preston's Theory of Light is studied this year.

ELEMENTARY MECHANICS:

Prerequisite for *Physics C.* The course embraces (1) the solution of numerous problems involving the composition and resolution of forces, accelerations and velocities, or the calculation of work, energy and momentum; (2) the determination of the moments of inertia of a few regular figures; (3) the derivation of the formula for the time of oscillation of a simple pendulum. Three hours, second half-year.

CHEMISTRY.

REQUIRED WORK.

Junior Class, A. B. Course. Beginning Chemistry.—The time given to the subject in this course comprises four periods a week of recitation, discussion, or lectures, and four periods of work in the laboratory.* The general text-book work (chiefly upon Inorganic Chemistry) is supplemented by lectures and discussions upon the fundamental laws of chemistry, the applications of chemistry to sanitary science, medicine, and some of the arts, and also by the occasional preparation of papers from descriptions given in technical books, and by reports of visits to accessible metallurgical and manufacturing establishments. The experimental work is made very thorough and exacting, to secure a practical familiarity with the substances studied, and with the methods of manipulation practiced in chemical laboratories. The course covers sufficient Qualitative Analysis to enable the student to separate the common metals and acids, and includes a few simple determinations in Quantitative Analysis. The text-book is Remsen's Introduction to the Study of Chemistry, or some other approved work.

---

*The periods of recitation and laboratory work taken together count as four hours a week upon the time requirements of the year. In order, however, that the hours taken for this subject may not be proportionately excessive; the laboratory work is considered a part of the usual preparation of lessons, and the length of time exacted for study or writing is made correspondingly short.

Sophomore Class, Ph. B. Course. Second Year Work.—The purpose of the course is to give to the student a general knowledge of chemistry. The chief theories and laws are studied with reference to the explanation of chemical phenomena. The practical application of chemistry in the arts, and its uses in the sanitary regulation of daily life and work, are brought prominently forward. The student is also trained to obtain readily from technical works the data and details familiar only to the professional chemist. The preparation of abstracts from books on chemical technology and sanitary science, and discussions upon recent discoveries and applications of chemistry, will occasionally take the place of the usual recitation. The work in the laboratory comprises a series of experiments, most of which correspond in character to those given in Reynolds' Experimental Chemistry, and it also includes a brief, practical study of analytical and synthetic methods.

The work of each student must be recorded and reported individually, and occasionally such reports will be discussed by the class. Reports by students or committees upon visits made to manufacturing or chemical works may be read and discussed in class. The nine periods* per week (during the year) required for this course are divided about equally between laboratory practice and the class-room work.

ELECTIVE WORK (ADVANCED).

The following electives have been arranged for students who wish to continue the chemical work of the Sophomore year, Ph. B. Course:

(a.) *General and Applied Chemistry.*—This course follows in the main the outlines of the work of the required course Theoretical Chemistry is much more fully treated, and more elaborate and delicate experiments are required, but the preparation of inorganic compounds constitutes the greater portion of the laboratory work. The more recent advances, both in Theoretical and Applied Chemistry, are noted and discussed in connection with the various elements or groups under consideration. The applications of chemistry to the arts are studied in greater detail, and the modern uses of chemistry in the sciences of Biology, Medicine, Geology, etc., are treated as fully as the length of the course will permit. Instruction is given in part by lectures, but references are freely made to the works of Remsen,

---

*See foot note on page 43.

Fownes, Roscoe and Schorlemmer, etc., for particular subjects. Certain works on Sanitary Science are assigned for private study and the preparation of abstracts and written discussions. In lieu of the usual preparation of lessons for recitation, students are required to perform in the laboratory the experiments given in the lectures and such others, in addition, as may be outlined for practice. The hours of lecture and recitation are four a week, continued for one year. The hours required for laboratory work are six a week for the same period. Both together count as four hours on the time requirement of the year.

(b.) *Qualitative Chemical Analysis.*—This course is open only to students who, by previous study of General Chemistry, are properly qualified for the work. The time occupied by the course is one year, and the hours required for laboratory work are equivalent to two consecutive periods, four days a week, both together being counted as four hours of the time requirement of the year. The lectures will be given at such hours and at such intervals as will be best suited to the class. A text book for reference and study will be assigned at the beginning of the year. The work of the course comprises experimental drill in obtaining characteristic reactions of the more common elements, study of empirical formulæ and symbolic expression of reactions, solution of substances, separation of groups of elements, and finally analysis--first of simple salts and later of complex mixtures. The analytical work is confined almost wholly to inorganic substances, but includes certain common organic acids and a few organic bodies of general and medicinal use. The final examination is both experimental and theoretical in character.

(c.) *Quantitative Chemical Analysis.*—The course in Quantitative Analysis presupposes a knowledge of General Chemistry and Qualitative Analysis. In it are included the volumetric measurement of liquids, the accurate use of fine balances, and the general subject of Stoichiometry. In the earlier part of the course, the student is made familiar with gravimetric and volumetric determinations of single elements, by approved methods. Complete analysis of simple salts follow next in order. Salts, alloys, minerals, ores, slags and mineral water are among the substances required to be analyzed by the student. The analysis of inorganic substances only is studied in this course. As a final part of his work in the course, the student is given practice in a few of the commercial or rapid determinations of the constituents of ores and minerals.

The course occupies one year. The laboratory work occupies three consecutive hours, four days a week (counted as four hours on the requirement of the year). Lectures will be given at intervals through the course. The text-book will be Quantitative Analysis by Cairns.

S. B. COURSE IN CHEMISTRY.

An outline of this course is given on page 30. It includes as required studies the electives marked (a.), (b.) and (c.), outlined above, and Organic Chemistry. Theoretical Chemistry may also be taken in this course as an elective. Other subjects must be chosen from the electives offered in other courses, to make up the full number of schedule hours required.

DEPOSITS, CHEMICALS, SUPPLIES, ETC.

A cash deposit, estimated as probably sufficient to defray the cost of chemicals, gas and non-returnable supplies, must be made by each student at the beginning of the course. Glassware and necessary apparatus are loaned, and must be returned in good condition for reissue, or be paid for if damaged or destroyed. Chemicals, supplies and apparatus are issued to students as needed. The deposit required for each course is as follows:

General Chemistry—Preparatory course	$4 00
General Chemistry—Junior year, A. B course	5 00
General Chemistry—Sophomore year, Ph. B. course	6 00
General Chemistry—Elective course	10 00
Qualitative Analysis—Elective course	15 00
Quantitative Analysis—Elective course	15 00
Organic Chemistry—Elective course	15 00
Deposit for desk key (returned when key is given up)	15

BIOLOGY.

A laboratory, equipped with dissecting-tables and trays, reagents, twelve compound microscopes, a dissecting-microscope, a sledge microtome, and other apparatus, affords the larger facilities for the work offered in the line of Biology. Students supply for themselves the smaller items of equipment and a considerable part of the biological material required for their work.

Elementary Biology.—Required of Freshmen in the Ph.B. and S. B. courses. The study extends through the year, comprising three laboratory exercises a week, usually of two hours each, with prescribed readings and other exercises at the discretion of the instructor. Special attention is given to the morphology of the Arthropoda, the work including the dissection of the Crayfish and Grasshopper, and comparison of the latter with other Tracheata. This is followed by a study of the skeletal structures in one or two of the following groups: Sponges, Corals, Echinoderms, Mollusks. Considerable time is also given to the study of Foraminifera, fresh-water Rhizopoda, ciliated, flagellated, and tentacled Infusoria, Rotifera and other microscopic Vermes, Hydra and marine Hydrozoa, and Molluscoidea, and to the histology of the blood, teeth, and more important tissues of the Vertebrata. The botanical part of the work begins with the histology of the flowering plants. Pine and hard wood are studied in transverse, radial, and tangential section; then exogenous and endogenous herb-stems, leaves, roots and plant-hairs. Then follows the study of selected types of non-flowering plants, such as Yeasts, Bacteria, Oscillatoriæ, Moulds, Hygrocrocis, Diatoms, Desmids, Spirogyra, Lichens, Fungi, Mosses, Ferns. No text-book is closely followed, the work being personally superintended by the instructor; but students are required to provide themselves with some elementary book or books on Biology, and they have access to a small-working library which the College maintains in the laboratory for their especial use, and also to certain monographs in the private library of the instructor.

Cryptogamic Botany.—Required of Sophomores in the Biology division of the S. B. course; three times a week for the first half-year. Advanced study of the non-flowering plants. Aside from the collecting of plants, some outside reading and occasional recitations or quizzes, the course consists of laboratory work. Text-book, Bennett and Murray's Handbook of Cryptogamic Botany. As reference-works, the writings of Sachs, De Bary, Bessey, Rabenhorst, Wolle, Cooke, Fries, Ellis, etc., are used. Elementary Biology is a prerequisite.

Zoology.—Required of Sophomores, in the Ph. B. and S. B. courses. In the A. B. course, alternative with Greek and French or German. Recitations and special exercises; three times a week for the second half-year. Text-books, Packard's Zoology, and Hertwig's General Principles of Zoology.

Comparative Anatomy of Invertebrates.—Required of Juniors in the Biology division of the S. B. course; three times a week through the year. Laboratory work, with references to writings of Huxley, Gegenbaur, etc. Zoology is a prerequisite.

Comparative Anatomy of Vertebrates.—Required of Seniors in the Biology division of the S. B. course; three times a week for the first half year. Laboratory work, with references to the writings of Flower, Wiedersheim, Huxley, Cuvier, etc. Zoology is a prerequisite.

Comparative Embryology.—Required of Seniors in the Biology division of the S. B. course; three times a week for the second half-year. Recitations and laboratory work. Text-books, Hertwig, Korschelt and Heider's Text-book of Embryology (translated by Mark and Woodworth). Zoology and the Comparative Anatomy of Invertebrates and of Vertebrates are prerequisites.

GEOLOGY.

The study of Geology is peculiarly attractive in the vicinity of Colorado Springs. Few localities present strata of so many geological ages or so varied an assemblage of rock and mineral species. Fossils of systems as early as the Cambrian and as late as the Quaternary occur within a radius of six miles of the College. Veins, dikes, faults, caves, flood-plains, river-erosion, sand-carving and the results of orogenic and glacial action are all well illustrated near at hand.

To the wealth of geological illustration that nature presents to the student in this district, the College Museum and a selection of lantern slides add many instructive specimens and views. The equipment of the geological laboratory includes a lithological microscope, a lithological lathe, standard series of mounted microscopic rock-sections and some of the more important of the micro-photographically illustrated atlases of lithology.

Geology.—Required of Juniors in the Ph. B. and S. B. courses; four times a week through the year. Recitations and special exercises, supplemented by excursions to points of geological interest. In the first half-year, Dynamical and Structural Geology are studied; in the second, Historical Geology. Text-books: Scott's Introduction to Geology; LeConte's Elements of Geology. Zoology is a prerequisite.

Special students, to elect Geology, must previously have had, as preparation for the work of the first half-year (Inorganic Geology), Elementary Chemistry; and for that of the second half-year (Organic Geology), at least a term's work in Zoology or Biology.

Mineralogy.—Required of Sophomores in the Geology division of the S. B. course; three times a week for the first half-year. This study is approached both from the physical and from the chemical side. The work consists, in part, of recitations, but more largely of laboratory practice in the determination of minerals. Text-book for recitation work, Dana's Mineralogy and Petrography.

Lithology.—Required of Juniors in the Geology division of the S. B. course; three times a week for the first half-year. Recitations from prescribed parts of Rosenbusch's Microscopical Physiography of the Rock-Making Minerals (Idding's translation); preparation of microscopical sections of rocks, followed by determinative work. Mineralogy is a prerequisite.

Economic Geology. Required of Seniors in the Geology division of the S. B. course; three times a week for the first half-year. Recitations, with reference to illustrative specimens, and occasional visits to geological localities of special economic interest, and to industries based on geological resources. Text book: Tarr's Economic Geology. Geology is a prerequisite.

Invertebrate Paleontology.—Required of Juniors in the Geology division of the S. B. course; three times a week for the second half-year. Laboratory study of fossils of principal groups, preceded, for the most part, by a study of recent forms of the same or allied groups. The student is guided in the consultation of leading authorities, such as Zittel, Steinmann and Dœderlein, Bernard, Nicholson, Tryon, etc. Zoology is a prerequisite.

Vertebrate Paleontology.—Required of Seniors in the Geology division of the S. B. course; three times a week for the second half-year. Laboratory studies in the Comparative Osteology, Taxonomy and Evolution of the Vertebrata. The student makes use of the general works and monographs of Flower, Zittel, Huxley, Cuvier, Leidy, Cope, Marsh, etc. Zoology is a prerequisite.

ECONOMICS.

The instruction in this department consists of a systematic course in the elements of Political Economy, required of all students, followed by elective courses in special subjects. The systematic course is a prerequisite for the pursuit of any of the elective courses.

Elements of Political Economy.—Required of Juniors. Lectures, recitations, discussions, assigned reading, and reports. Text: Walker's Political Economy (Adv. Course). Four hours a week, first half-year.

Public Finance.—Senior elective. This course treats of taxation, public expenditure, public debts and the budget. Instruction is given mainly by lectures with reading in various systematic treatises and monographs. Text: Bastable's Public Finance. Three hours a week, second half-year.

Money and Banking.—Junior and Senior elective. A historical and theoretical course in money and banking, treating especially the production of the metals, the theory of value, the history of prices, bimetallism, paper money, bank notes, etc. Lectures, recitations, reports and discussions. Texts: Walker, Money; White, Money and Banking; Dunbar, Theory and History of Banking. Two hours a week, first half-year.

Railroads.—Junior and Senior elective. A course on the history of transportation and its present problems, with especial reference to the relations of the railroads to the State, to the public, and to the employes. Lectures, recitations, etc. Texts: Hadley, Railroad

Transportation; Dabney, Public Regulations of Railways. Two hours a week, second half year.

Socialism.—Junior and Senior elective. A historical and critical course in socialism and socialistic theory. Especial attention is paid to the historical basis of socialism, the French revolution, the idealists, the German scientific socialists, the Christian socialists, the State socialism of to-day, and also to the various attempts at socialistic reform, such as co-operation, profit-sharing, etc. Lectures and recitations. Texts: Ely, French and German Socialism; Schaeffle, Quintessence of Socialism. Two hours a week, second half-year.

POLITICAL SCIENCE.

Three courses are offered in Political Science: first, a historical course showing the broad political features of the various historical forms of government; second, a comparative study of the chief existing governments; third, a brief course in International Law. Notice also the course in Socialism, described under the department of Economics.

Historical Politics.—Junior and Senior elective. This course aims to trace the origin and growth of government from its primitive forms to the establishment of the modern states, studying successively the semi-amorphous horde, gentile society, the ancient city, the Roman Empire, the Germanic folk, the feudal system, the political system of the Church, the Holy Roman Empire, the rise of national states, the development of absolute and constitutional monarchy, the triumph of democracy, etc. The course is conducted mainly by means of lectures, supplemented by recitations, reports and extensive outside reading. Text: Wilson's State. Three hours a week, first half-year.

Comparative Politics and Constitutional Law.—Junior and Senior elective. The course is a study and comparison of the governments of the chief modern states. It aims to give an exposition of the constitutional law of the several States and of their actual political organization. The great problems of federalism and centralization, of presidential and responsible ministerial government, and of the guarantees of civil liberty, receive especial consideration. This course is given by means of lectures, recitations and collateral reading. References are made to the principal cases in Thayer's Cases. Text: Wilson's State. Three hours a week, second half-year.

International Law.—Junior and Senior elective. A brief course in the elementary principles of International Law, with especial reference to American problems, such as arbitration, law of neutrality, citizenship, extradition, and to questions of diplomatic policy, such as the Monroe Doctrine. The course is conducted principally by recitations, discussions and reports, with frequent reference to Wharton's Digest, Snow's Cases and the "Treaties and Conventions of the United States." Text: Davis' International Law. One hour a week, first half-year.

HISTORY.

Four courses are offered in history. If the student intends to take both English history and the history of the United States, it is desirable that he should pursue the first before taking up the second. The course in the history of the Middle Ages is continuous with the course in the history of the Renaissance, and, if both are taken, the above named order should be observed. The course in Historical Politics, which is described among the studies in Political Science, is a course in general political and constitutional history.

English History.—Junior and Senior elective. A course in the political history of England from the earliest times to the American War. The course is conducted chiefly by recitations and collateral reading, supplemented by lectures on the constitutional development. Text: Gardiner's Student's History of England. Four hours a week, first half-year.

United States History.—Junior and Senior elective. A course in the history of the American colonies and the United States until recent times. This course is conducted by recitations, reading and lectures. Text: The "Epochs of American History" Series. Four hours a week, second half year.

History of the Middle Ages.—Junior and Senior elective. This is a narrative and descriptive course in the history of the Middle Ages. Special attention is paid to the social, economic, religious, and artistic aspects of the period. It is conducted by means of lectures, recitations and extensive collateral reading. Text: Duruy's Middle Ages. Two hours a week, first half-year.

History of the Renaissance.—Junior and Senior elective. This course is conducted in the same manner as the course on the Middle Ages. Two hours a week, second half-year.

Historical courses, amounting to four hours a week for one-half year, must be included by each student in the elective work of Junior or Senior year.

BIBLE STUDY.

One hour a week throughout the year. Open as an elective to Juniors and Seniors. Freshmen and Sophomores having time to take the work will be allowed advanced credit on Junior and Senior electives. Academy students will be allowed to enter the class, but will receive no credits.

The following courses are offered, which will be taken in successive years:

I. Introduction to the Books of the New Testament.
II. The Life of Christ (two years).
III. Studies in the Books of Samuel.

In 1898-9 the class will study Course I.

EXPRESSION AND ORATORY.

The aim of this department is to prepare the student for the proper and fitting expression of the general knowledge acquired in a college education. Special attention will be given to the cultivation of the voice and action, not alone for public speaking, but for suitable expression in every department of work—the requirements of business, of legal practice, of teaching, of the lecture platform, of the legislative hall, and of preaching.

Voice and Gesture.—During Sophomore year work will be required in voice and gesture.

Oratory and Forensics.—During Sophomore year work will be required to the extent of the preparation of two orations and the public delivery of one. A course of lectures upon the History of Oratory and Orators will be given. The preparation of briefs, with participation in public debate, will be required. One hour a week. An elective in Oratory will be offered to Seniors, and there will also be an elective in Forensics for Juniors and Seniors.

Extempore Speaking.—An elective in this work will be offered to Juniors and Seniors. No student will be admitted to this course who has not completed the required course in Oratory and Forensics. Two hours a week.

Vocal Interpretation.—An elective is offered to Seniors and Juniors in the vocal study of the best forms of classic literature, lyric, epic and dramatic.

Prizes.—A prize of fifty dollars is offered to members of the Apollonian Club for excellence in debate, the contest taking place in March.

An oratorical contest is held each year, open to all members of the College. The winner receives a prize of twenty-five dollars.

With this year begins a series of intercollegiate debates with the University of Nebraska, the first one being held April 22, in Colorado Springs. The College was represented by Messrs. A. E. Holt, '98, J. R. Thompson, '98, and Lincoln Goodale, '99. These debates will prove a great stimulus to the work of the department.

PHYSICAL TRAINING.

Regular exercise is required of all the students, and the work is adapted to the needs of each.

The gymnasium is a separate building, heated by steam and well fitted with all the necessary modern appliances for the most approved methods of physical exercise. The basement is provided with lavatories containing shower-baths (hot and cold water), lockers and private dressing rooms.

Class drills are held for young men and young women, separately. In addition, students may undertake individual work under the advice of the Director, and may have special hours assigned for this purpose.

Out-door exercise is recommended in the majority of cases, and the sunny climate of Colorado Springs makes it possible for such exercise to be taken with great regularity through almost the entire year. Colorado College possesses one of the oldest college golf clubs of the country. This popular game is now being recommended by physicians as especially adapted to the needs of those who are unable to participate in more violent exercise, while the beautiful country about Colorado Springs and the delightful open winters admit of its being played the year round, and make it very popular. Tennis is also played during the entire season. Several new tennis courts have been laid out upon the College grounds and the facilities are sufficient to accommodate all those who wish to exercise in this way. The College is also represented in base-ball, foot-ball, tennis and field sports in a State intercollegiate league.

In the rear of the college buildings, and facing the mountains to the west, there is a natural ampitheatre. This has lately been converted into an athletic park. About five acres of land have been inclosed and brought to a level. The soil has been covered with a three-inch coating of cinders and this in turn with some three inches of loam. At the south-east corner of the ground and facing the mountains, a grand stand with a seating capacity of 600 has been erected. A quarter-mile running track encircles the base ball ground. For situation and adaptation to its purpose there is no more complete and satisfactory park in the State. Its completion marks a new era in the College athletics.

The athletic interests of the College are controlled by an advisory board consisting of two members from the faculty, two from the city, one or two from the alumni, and one representative from each of the College classes. This board advises the students in all their sports, audits the accounts of managers, and raises and authorizes the expenditure of money for various athletic interests.

PRIZES AND HONORS.

College Scholarship Honors of two grades are awarded at Commencement for excellence in the work of the year. The Honor list for 1896-7 was as follows:

HIGH HONORS.

Lester McLean, Jr, of Denver, *Class of 1899.*
Robert Turnstall Walker, of Denver, *Class of 1900.*

HONORS.

Frank Kelton Bailey, of Leadville, *Class of 1898.*
William Cecil Browning, of Pueblo, *Class of 1900.*

A prize for proficiency in Latin is offered annually for competition among members of the Freshman class. It consists of ten dollars' worth of books. It was awarded in June, 1897, to

William Cecil Browning, of Pueblo.

SCHEDULE OF RECITATIONS.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
1 8:30	II. Algebra. III. English. Ph. B. Chemistry. German E. [Jun. Polit. Economy.]	[I. Roman History.] *I. English History.* [II. Government.] *II. Greek History.* IV. Mathematics. Analytical Geometry. A. B. Chemistry. [Sen. Hist. Philosophy.] *Sen. Ethics.*	I. Expression. II. Algebra. III English. Fr. Mathematics. Ph. B. Chemistry. [Jun. Polit. Economy.] [Sen. Hist. Philosophy] *Sen. Ethics.*	[I. Roman History.] *I. English History.* [II. Government.] *II. Greek History.* IV. Mathematics. Analytical Geometry. Physics C. A. B. Chemistry. [Sen. Hist. Philosophy.] *Sen. Ethics.*	I. Expression. III. English. *Fr. Surveying.* Analytical Geometry. [Jun. Polit. Economy.] [Sen. Hist. Philosophy] *Sen. Ethics.*
9:20	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.
2 9:45	II. Latin. III. Greek. Fr. Greek. Ph. B. Chemistry.* Physics A. Geology.	II. Latin. III. Greek. German B. Mechanical Drawing. Physics C. A. B. Chemistry.* Geology.	II. Latin. III. Greek. IV. Physics. Fr. Greek. Ph. B. Chemistry.* [Elective Eng. History] *Elective U. S. History.*	II. Latin. III. Greek. German B. Mechanical Drawing. A. B Chemistry.* Geology.	II. Latin. III. Greek. Fr. Mathematics. Soph. English.
3 10:35	I. Latin. IV. English. Ph. B. Chemistry.* Physics A [Elective Eng. History] *Elective U. S. History.*	I. Latin. III. Geometry. IV. Physics. Fr. English Mechanical Drawing.* Soph. Greek. Ph. B. Chemistry. [Elective Eng. History] *Elective U. S. History.*	I. Latin. III. Geometry. IV. Physics.* French B. A. B. Chemistry. Geology.	I. Latin. III. Geometry. IV. Physics. Fr. English. Soph Greek. Ph. B Chemistry. Mechanical Drawing.* [Elective Eng. History] *Elective U S. History.*	I Latin. III. Geometry. IV. Physics. French B. A. B. Chemistry. Sen. English.

4 11:25	III. Latin. Fr. Biology. Soph. Greek. Physics B. and C. Sen. English.	I. English. II. English. III. Latin. Fr. Mathematics. Ph. B. Chemistry.* Physics A	I. English. III. Latin. Fr. Biology Soph. Greek. Physics B and C. A. B. Chemistry.* Sen. English.	I. English. II. English. III. Latin. Fr. Mathematics. Ph. B. Chemistry.* Mechanical Drawing.* Physics A.	I. English. III. Latin. IV. Physics.* Fr. Greek. Fr. Biology. Soph Oratory. A. B. Chemistry.* Sen. English.*
5 12:15	II. Greek. Fr. Biology.* Physics B and C.*	II. Greek. III. Expression. Soph. English. [Jun. Polit. Economy.]	II. Greek. Fr. Biology.* Physics B and C.* German C.	II. Greek. III. Expression. [Astronomy.] *Soph. English.*	II. Greek. III. Greek. Fr. Biology.* *Physics B.* [Astronomy.]
6 2:30	I. Algebra. [II. Physiology.] *II. Botany.* IV. Latin. German B. Soph. Latin.	I. Algebra. [II. Physiology.] *II. Botany.* III. Chemistry. IV. Latin. French A Fr. Latin. *Fr. Mechanics.* [Jun. Logic.] *Jun. Psychology.*	I. Algebra. [II. Physiology.] *II. Botany.* III. Chemistry. IV. Latin. French A. Fr. Latin. [Jun. Logic] *Jun. Psychology.*	I. Algebra. [II. Physiology.] *II. Botany.* III. Chemistry. IV. Latin. French A. Fr. Latin. *Fr. Mechanics.* [Jun. Logic.] *Jun. Psychology.*	I. Algebra. III. Chemistry. IV. Latin. French A. German C. Fr. Latin. *Fr. Mechanics.* [Jun Logic.] *Jun. Psychology.*
7 3:20	II. Drawing. IV. Greek. French B. *Soph. Zoology.* Jun. English.	III. Chemistry.* IV. Greek. *Fr. Surveying.* *Soph. Zoology.* [Astronomy.]	III. Chemistry.* IV. Greek. *Fr. Surveying.* [Analytical Geometry.] *Soph. Zoology.* Jun. English.	III. Chemistry.* IV. Greek. French B. Soph. Latin. Jun. English.	II. English. III. Chemistry.* IV Greek. German B Soph Latin.
8 4:10	II Drawing.* German A. French C.	German A. French C.	German A.	German A. French C.	

[Bracketed titles] are for the first half-year only. *Italicized titles* are for the second half-year only. The hours of gymnasium exercise, as well as those of elective studies, are inserted in the schedule at the opening of the academic year. *Continued from the preceding period.

THE CUTLER ACADEMY—FACULTY.

WILLIAM FREDERICK SLOCUM,
President.

NATHAN B. COY,
Principal,—Latin.

LOUIS A. E. AHLERS,
French and German.

FLORIAN CAJORI,
Physics.

FRANCIS W. CRAGIN,
Botany.

P. E. DOUDNA,
Mathematics.

WILHELM FICK,
German.

GEORGE A. H. FRASER,
Latin.

M. CLEMENT GILE,
Greek.

HENRY E. GORDON,
Elocution and Rhetoric.

WILLIAM GREENBURY,
Drawing.

FRANK H. LOUD,
Mathematics.

HANNAH TAYLOR MUIR,
Physiology and Hygiene.

ATHERTON NOYES,
English and Greek.

EDWARD S. PARSONS,
English.

WILLIAM STRIEBY,
Chemistry.

FRANCIS WALKER,
History and Government.

THE CUTLER ACADEMY.

This fitting school, named in honor of one of the most generous and steadfast friends of Colorado College (Henry Cutler, of Massachusetts), provides a thorough preparation for any college in the United States. While the preparatory training is the principal aim, the plan of study is so arranged as to meet the requirements of students who do not propose going on into college work. The course is a thorough one, embracing four years, and the teaching is carefully conducted by experienced instructors, most of whom are also engaged in the work of the College.

Correspondence concerning the Cutler Academy should be addressed to the Principal, Nathan B. Coy.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the Cutler Academy are expected to have finished the eighth grammar grade in the public schools, or to have covered an equivalent of the following work:

Arithmetic—Franklin or Wentworth.
English—Reed and Kellogg's Higher Lessons.
History—Montgomery's United States History.
Geography—Any school Geography.

Applicants for admission who have, within six months, been students in the Colorado Springs High School, must present certificates from the High School, showing completion of the work of the grade preparatory to the Academy class which they wish to enter. The High School will, upon payment of a small fee, provide special examinations for this purpose, if the regular examinations were not passed. The Academy will not examine such applicants, except upon subjects which were not included in their High School course.

Candidates for admission in 1898 are expected to present themselves at Palmer Hall on Tuesday, June 7, or Tuesday, September 13, at 9 A. M. Every applicant for admission must bring a satisfactory certificate of good moral character, together with a full written statement of studies pursued elsewhere. Any student whose influence is felt to be injurious to good scholarship or good morals will not be permitted to remain in the Academy.

COURSES OF INSTRUCTION.

CLASSICAL COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book	5
	Algebra: Through Fractions	5
	English: Review of Grammar, and the study of simple composition	4
	Required Supplementary Readings, see p. 67.	
	History: Roman	2
	Expression: Elementary work in voice and gesture	2
SECOND HALF:	*Latin:* First Latin Book completed; Via Latina (Collar); reading at sight	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: Continued study of composition; Gayley's Classic Myths; reading of poetry; figurative language; versification	4
	Required Supplementary Readings, see p. 67.	
	History: English	2
	Expression: Drill in recitation, and public rhetoricals	2

SECOND YEAR.

FIRST HALF:	*Latin:* Grammar (Allen and Greenough); Via Latina; Cæsar's Gallic War, Books II-IV; prose composition (Moulton and Collar); reading at sight	5
	Greek: Grammar (Goodwin); White's Beginner's Greek Book	5
	English: Genung's Outlines of Rhetoric: choice of words, phraseology, the sentence; constant writing	3
	Required Supplementary Readings, see p. 67.	
	Algebra: Quadratic Equations completed	2
	Government	2
SECOND HALF:	*Latin:* Grammar; Cæsar, Book I; Ovid, Stories from the Metamorphoses; reading at sight; prose composition	5
	Greek: Grammar; Xenophon (Coy's First Greek Reader); reading at sight	5
	English: Genung's Outlines of Rhetoric concluded; the sentence continued, the paragraph, the whole composition; constant writing	3
	Required Supplementary Readings, see p. 67.	
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2

THIRD YEAR.

FIRST HALF:	*Latin:* Grammar; Cicero, Four Orations against Catiline; reading at sight; prose composition (Moulton and Collar)................	5
	Greek: Xenophon's Anabasis (Goodwin), 2 books; reading at sight; written translations; composition (Collar and Daniell)	5
	Geometry: Two books of Plane Geometry (Beman and Smith)................................	4
	English: *Burke's Speech on Conciliation;* Pope's Homer's Iliad, Books I, VI, XXII, XXIV; Dryden's Palamon and Arcite.....	3
	Required Supplementary Readings, see p. 67.	
	Expression: Advanced work in voice and gesture..	2
SECOND HALF:	*Latin:* Grammar; Cicero, Orations for Archias, for Marcellus, and for the Manilian Law; Vergil, Bucolics; reading at sight; prose composition	5
	Greek: Xenophon's Anabasis, 2 books, or an equivalent; reading at sight; composition	5
	Geometry: Plane Geometry completed.	4
	English: *Shakespeare's Macbeth,* De Quincey's Flight of a Tartar Tribe; Addison's De Coverley Papers.........................	3
	Required Supplementary Readings, see p. 67.	
	Expression: Drill in declamation, public rhetoricals	2

FOURTH YEAR.

FIRST HALF:	*Latin:* Grammar; Vergil, Aeneid, Books I-III; reading at sight; prose composition.......	5
	Greek: Homer, 1,200 lines; composition; reading at sight	5
	German: Grammar; composition; reading. (See German A, p. 38)........................	4
	Mathematics: Review and general exercises....	2
	English: *Shakespeare's Macbeth,* Hamlet; Coleridge's Ancient Mariner	1
	Required Supplementary Readings, see p. 67.	
SECOND HALF:	*Latin:* Grammar; Vergil, Aeneid, Book IV; reading at sight; prose composition	5
	Greek: Homer, 1,800 lines; written translations; Mahaffy's Old Greek Life; Jebb's History of Greek Literature; composition.........	5
	German: Grammar; composition; reading. First half-year's work continued................	4
	Mathematics: Review and General Exercises...	2
	English: *Carlyle's Essay on Burns;* De Quincey's Flight of a Tartar Tribe; Paradise Lost, Books I and II.........................	1
	Required Supplementary Readings, see p. 67.	

NOTE.—In the *English* titles above, italics indicate the works intended for careful study; others are for reading.

LATIN-SCIENTIFIC COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book	5
	Algebra: Through Fractions	5
	English: As in corresponding half-year of Classical Course	4
	History: Roman	2
	Expression: As in corresponding half-year of Classical Course	2
SECOND HALF:	*Latin:* First Latin Book completed; Via Latina (Collar); reading at sight	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: As in corresponding half-year of Classical Course	4
	History: English	2
	Expression: As in corresponding half-year of Classical Course	2

SECOND YEAR.

FIRST HALF:	*Latin:* Grammar (Allen and Greenough); Via Latina; Cæsar's Gallic War, Books II-IV; prose composition (Moulton and Collar); reading at sight	5
	Physiology: Huxley's Elementary Lessons in Physiology; Martin's Human Body	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Quadratic Equations completed	2
	Government:	2
	Drawing:	1
SECOND HALF:	*Latin:* Grammar; Cæsar, Book I; Ovid, Stories from the Metamorphoses; reading at sight; prose composition	5
	Botany: Gray's Lessons and Coulter's Manual of Rocky Mountain Botany	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2
	Drawing:	1

THIRD YEAR.

FIRST HALF:	*Latin:* Grammar; Cicero, Four Orations against Catiline; reading at sight; prose composition (Moulton and Collar)	5
	Chemistry: Williams' Elements of Chemistry; laboratory practice	4
	Geometry: Two books of Plane Geometry	4
	English: As in corresponding half year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2
SECOND HALF:	*Latin:* Grammar; Cicero, Orations for Archias, for Marcellus, and for the Manilian Law; Vergil, Bucolics; reading at sight; prose composition	5
	Chemistry: Work of first half-year continued	4
	Geometry: Plane Geometry completed	4
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2

FOURTH YEAR.

FIRST HALF:	*Latin:* Grammar; Vergil, Aeneid, Books I-III; reading at sight; prose composition	5
	German: German A (p. 38), as in Classical Course	4
	Physics: Text-book and laboratory practice	4
	Algebra: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	1
SECOND HALF:	*Latin:* Grammar; Vergil, Aeneid, Books IV, VI; reading at sight; prose composition; prosody	5
	German: First half-year's work continued	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	1

SCIENTIFIC COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book	5
	Algebra: Through Fractions	5
	English: As in corresponding half-year of Classical Course	4
	History: Roman	2
	Expression: As in corresponding half-year of Classical Course	2

SECOND HALF:	*Latin:* First Latin Book completed; Via Latina (Collar); reading at sight	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English. As in corresponding half-year of Classical Course	4
	History: English	2
	Expression: As in corresponding half-year of Classical Course	2

SECOND YEAR.

FIRST HALF:	*Latin:* Grammar (Allen and Greenough); Via Latina; Cæsar's Gallic War, Books II-IV; prose composition (Daniell); reading at sight	4
	Physiology: Huxley's Elementary Lessons in Physiology; Martin's Human Body	5
	English: As in corresponding half-year of Classical Course	3
	Algebra: Quadratic Equations completed	2
	Government:	2
	Drawing:	1
SECOND HALF:	*Latin:* Grammar; Cæsar, Book I; Ovid, Stories from the Metamorphoses; reading at sight; prose composition	5
	Botany: As in the Latin-Scientific Course	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2
	Drawing:	1

THIRD YEAR.

FIRST HALF:	*German:* Grammar; composition: reading. (See German A, p. 38.)	4
	Chemistry: Williams' Elements of Chemistry; laboratory practice	4
	Geometry: Two books of Plane Geometry	4
	Algebra: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half year of Classical Course	4
SECOND HALF:	*German:* First half-year's work continued	4
	Chemistry: First half-year's work continued	4
	Geometry: Plane Geometry completed	4
	Mathematics: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2

FOURTH YEAR.

FIRST HALF:	*German:* A course corresponding to German B, p. 38	4
	French: Grammar; composition; reading. (See French A, p. 40.)	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Algebra; Plane Trigonometry	4
	English: As in corresponding half-year of Classical Course	1
SECOND HALF:	*German:* First half-year's work continued	4
	French: First half-year's work continued	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Algebra; Solid Geometry; Spherical Trigonometry	4
	English: As in corresponding half-year of Classical Course	1

APPENDIX.

REQUIRED SUPPLEMENTARY READINGS FOR ACADEMY ENGLISH CLASSES.

First Academy: Macaulay's Lays of Ancient Rome; Hawthorne's Wonder Book and Tanglewood Tales; Æsop's Fables; Gulliver's Travels; Arabian Nights; Scott's Ivanhoe: Dickens' Oliver Twist; Hughes' Tom Brown at Rugby; Ouida's A Dog from Flanders; Kingsley's Water Babies; Mark Twain's The Prince and the Pauper; Tennyson's Enoch Arden; Lamb's Tales from Shakespeare; Marden's Pushing to the Front.

Second Academy: St. Pierre's Paul and Virginia; Lanier's The Boy's King Arthur; Tennyson's Idylls of the King; Irving's Tales of a Traveller; Scott's Tales of a Grandfather; Dickens' Christmas Carol; Lanier's The Boy's Froissart; Bryant's Iliad; Scott's Talisman; Kingsley's Westward Ho; Martyn's Life of Phillips.

Third Academy: Scott's Marmion and The Lady of the Lake; Lamb's Essays of Elia; Irving's Conquest of Grenada; Scott's Quentin Durward and Peveril of the Peak; Bulwer's The Last Days of Pompeii; Plutarch's Lives of Themistocles and Alcibiades; Shumway's A Day in Ancient Rome; Fiske's American Revolution; Personal Memoirs of U. S. Grant; *Goldsmith's Vicar of Wakefield; Cooper's Last of the Mohicans.*

Fourth Academy: Palmer's Odyssey (or Leaf's Iliad); Matthew Arnold's Sohrab and Rustum; Scott's Guy Mannering and The Heart of Midlothian; Curtis' Prue and I; Saintine's Picciola; Jane Austin's Pride and Prejudice; Marden's Architects of Fate; *Lowell's Vision of Sir Launfal; Hawthorne's House of the Seven Gables.*

NOTE.—Composition work in connection with the books whose titles are italicized.

LATIN PRONOUNCIATION

The Roman system of pronouncing Latin is used in both Academy and College.

PREPARATION FOR OTHER COLLEGES.

A student who is preparing in Cutler Academy for some other college than Colorado College, where the requirements for admission differ in some particulars, can, by timely application to the instructors, secure such modification of his course as will meet the necessities of his case.

COLORADO COLLEGE CONSERVATORY OF MUSIC.

FACULTY.

RUBIN GOLDMARK,
Director of the Conservatory of Music and Instructor in Harmony, Counterpoint and Composition.

CLARENCE W. BOWERS,
Instructor in Piano-forte and Organ.

CHARLES DOPF,
Instructor in Violin.

OMA FIELDS,
Instructor in Piano-forte.

EDITH HUSE FRASER,
Instructor in Vocal Harmony.

FREDERIC HOWARD,
Instructor in Voice Culture.

STANLEY CASIMIR KACHELSKI,
Instructor in Brass Instruments.

R. F. SCHUBERT,
Instructor in Violoncello.

FANNY AIKEN TUCKER,
Instructor in Voice Culture.

COLORADO COLLEGE CONSERVATORY OF MUSIC.

Purpose and Scope.

The Conservatory of Music was established by the Trustees of Colorado College in the fall of 1894, with a view of affording a thorough education and superior advantages in all the higher musical branches.

While this movement had long been contemplated, the Trustees and Faculty were unwilling to undertake its organization until convinced that the same high standards in courses and instruction upheld in the College would be maintained in the Conservatory.

Necessity of the Conservatory.—The student of today in search of a better musical education is frequently at a loss whither to turn for instruction. There is certainly no lack of teachers, but the absence of system and of well-established standards that can serve as guides to the student often occasions considerable loss of time in experimenting, until suitable instruction is obtained. It is safe to assert that in no other branch are so many years wasted in unlearning that which has been badly acquired as in the study of music. By modeling its Conservatory after the best European and Eastern institutions, Colorado College aims primarily at thoroughness of instruction and the maintenance of artistic ideals.

Object of a Conservatory.—The object of a Conservatory is not to turn out pianists, organists, violinists, or singers. Its chief function is, while enabling the student to acquire technical proficiency in any desired branch of the art, at the same time to mould him into a musician. This can be accomplished only by the conservatory. Here the students of the various departments are drawn closely together in the exercise of their art. Co-ordinate branches, into which the private student can with difficulty gain an insight, are opened to view, a musical atmosphere is created, the horizon is widened, and the student unconsciously absorbs much that must prove of inestimable value in his own specialty.

Necessity of Theoretical Study.—The study of Musical Theory, for a long time so strangely neglected by the great majority of instrumentalists and vocalists, is of prime importance to every musician. The more he knows of Harmony, Counterpoint, Composition and the general History of Music, the more will his musical culture increase, his artistic view be broadened, his appreciation of the classic works of our great masters be deepened, and the more will he be able to impart to others the fundamental principles whereon musical progress is based.

Theory and Practice Combined.—While laying especial stress on its theoretical department, the Conservatory also provides for a course of illustrated lectures on general musical subjects and a series of recitals and concerts during each year, thus furnishing the student an opportunity of viewing in practice what he has learned in theory.

Importance of the Study of Other Educational Branches.—Nor can the musician of the present day afford to neglect his general education. Literary and artistic accomplishments should go hand in hand. Languages, aesthetics and belles lettres are of importance to the serious musican. On this account is it especially fortunate that the Conservatory stands in such intimate relation to the College, and that the pupils may avail themselves of its varied privileges. The Director of the Conservatory, or members of the College Faculty, will gladly confer with any student and assist him in determining what courses of study he may advantageously pursue.

RELATION OF THE CONSERVATORY TO COLORADO COLLEGE.

This Department is under the same general supervision as the other departments of Colorado College, and under the immediate management of the Director and Faculty of Music. The general rules of the College apply to students of music also.

For those students of the Conservatory who desire to make use of the collegiate department, the fee for one study in the college is fixed at ten dollars a term, or twenty dollars a year, a twenty per cent. reduction from the usual charge. For two or more studies, the regular tuition of seventeen dollars and a half a term, or thirty-five dollars a year, will be charged.

COURSES OF STUDY.

The following courses of study are offered: Piano, violin, organ, voice culture, harmony, counterpoint and composition, in addition to the special advantages to be enumerated further on. Instruction on the other instruments will be provided as soon as a sufficient demand is evident.

CLASS OR PRIVATE INSTRUCTION.

The student is offered a choice between class and private instruction. While there is a general tendency at present to prefer private lessons, attention is called to the marked advantages that result from class instruction. In the former case, the pupil has the entire attention of the instructor for the time of the lesson—one-half hour. In the latter, an hour is divided among three pupils. Thus, while the time of actual instruction is ten minutes less for each individual, all the pupils remain in the class the full hour; in this manner they learn as much by listening to their classmates as when receiving instruction themselves. The greater knowledge of musical literature thus obtained is not to be underrated. For those who intend to adopt teaching as a vocation, it is most important to profit by the mistakes of others. The system of class instruction is in vogue in all European, and in most of our Eastern conservatories.

I. Piano-Forte.—In this, as in all other departments, the instruction is adapted to the individual needs of each pupil.

The course is divided into three grades, *Elementary*, *Intermediate* and *Advanced.*

In the *Elementary* grade the student is taught to read music, to play scales and arpeggios, studies by Koehler, Heller, and the first books of Czerny's School of Velocity, sonatinas by Clementi and Dussek, and sonatas by Haydn and Mozart.

In the *Intermediate* grades the pupil is expected to master all the scales in double-thirds and double-sixths, Bach's Two-Part Inventions, and the French Suites, Etudes of Cramer, Clementi's Gradus ad Parnassum, Moschéles, op. 70, the earlier sonatas of Beethoven, selections from Mendelssohn and Schumann, and the less difficult works of modern composers.

The *Advanced* grade will study Bach's Well-Tempered Clavichord and the English Suites, Kullak's Octave-School, Tausig's Daily Studies, Etudes of Chopin, Schumann, Henselt, Rubinstein and Liszt, the piano concertos of Beethoven, Schumann, Chopin, Liszt, Grieg, Brahms and Tschaikowsky, as well as those works that constitute the repertory of the modern pianist.

Attention is also devoted in this course to sight-reading, accompaniment and ensemble-playing.

II. VOICE CULTURE AND SINGING,—Especial attention is given in this course to a correct management of the breath, the posing and preservation of the voice, artistic phrasing, and the development of a refined musical taste.

This course is divided into four grades: *Elementary*, *Intermediate*, *Junior*, and *Advanced*, and will cover the following works:

Elementary—Lessons in breathing; attack; simple tones; short intervals; slow trills; Behnke and Pearce's Exercises; easy songs.

Intermediate—Intervals; portamento; arpeggios; short scales; messa di voce; phrasing; Nava, Book I.; Concone or Sieber exercises; songs and sacred music.

Junior—Development of voice; scales; phrasing; Nava, Book II.; Concone or Luetgen exercises; Italian and German songs; oratorio.

Advanced—Scales; embellishments; further development of voice; Marchesi and Luetgen exercises; oratorio and opera; extended study of songs.

III. ORGAN.—It is required of pupils admitted to this course that they shall have first studied the piano for at least one year.

The *Elementary* grade is devoted to exercises in pedal playing, first studies in pedal obligato, hymn-tune playing, and elementary registration.

The *Middle* grade embraces an extended study of registration through the medium of pieces especially adapted for use as preludes and postludes in church service, including studies and pieces of the polyphonic type as represented by Bach and Rink, and the practice of quartette and chorus accompaniment.

The *Advanced* grade is devoted to the study of organ solo, including Bach's Preludes and Fugues, works in sonata form by Mendelssohn and others, modern works in free form, and lessons in improvisation and transposition.

IV. HARMONY.—This course includes the study of the various chords, their structure, relations and progressions, the working out of figured basses, the harmonization of choral-melodies, and modulation. All the principles are taken down by the students from demonstrations in the class-room. Richter's Harmony is used as a work of reference.

V. COUNTERPOINT.—This subject can be taken only by those who have satisfactorily completed the study of Harmony.

Simple and double Counterpoint for two, three and four voices, imitations, canons, three and four part vocal and instrumental fugues. No text-book is used.

Harmony and Counterpoint have been placed on the list of elective studies in the regular College courses.

VI. COMPOSITION.—This subject is divided into two courses of one year each. A thorough knowledge of Harmony and Counterpoint is necessary for admission.

Part I. The construction of phrases and periods; the simpler instrumental forms; the scherzo, rondo, adagio, variations, and the sonata-form. The student does practical work in all these departments of Composition; the work is criticised in detail in the class-room. Especial attention is devoted to the analysis of the classic master works.

Part II. Instrumentation; the nature and characteristics of all the orchestral instruments, and their application in symphonic writing; the larger vocal and instrumental forms; the string quartette and various branches of chamber music; continuation of analysis and reading from score.

FREE ADVANTAGES.

Choral Society.—All the students of the Conservatory are admitted free of expense to the Colorado Springs Choral Society, which meets once a week under the leadership of the Director of the Conservatory, and gives two public concerts during the year.

Sight-Reading Class.—A class in solfeggio and singing at sight is organized at the beginning of each year, and is free to all students of the Conservatory.

Special Lectures and Concerts.—All lectures and concerts given under the auspices of the Conservatory are free to students of music. The following have been given during the past year:

Two Organ Recitals—By Mr. C. W. Bowers.

Three Chamber Music Concerts—By Messrs. Goldmark, Dopf, and Schubert.

Five Lecture Recitals on Wagner's Music Dramas—By Mr. Rubin Goldmark.

It is the intention of the Faculty to make such lectures a feature of the department, thus stimulating a general interest in music by bringing various musical topics under discussion.

SPECIAL FEATURES.

The healthful surroundings and unexcelled climate of Colorado Springs, the quiet and seclusion that can so easily be obtained when desirable, are especial advantages to the music student. In many cases the study of music is a severe tax on the strength of the conscientious pupil. Here he can pursue musical and other studies, while at the same time gaining health and strength.

The student has access to the courses in Physical Training in the College, free of cost.

The College Library, of upwards of 20,000 volumes, is open to students of music on the same terms as to students of all other departments—three dollars a year.

EXPENSES—TUITION.

By the term of four months (coinciding with the College half-year), payable in advance; two lessons a week.

CLASS LESSONS, ONE HOUR LONG.

Piano-forte, violin, voice, organ, each	$25 00
Brass Instruments	17 50
Harmony	12 00
Counterpoint	18 00
Composition	22 50

PRIVATE HALF-HOUR LESSONS.

Piano-forte, violin, voice, organ, each	$35 00

ROOMS AND BOARD.

Montgomery Hall, Ticknor Hall, and Hagerman Hall, the homes of College and Academy students, will be open to students of music at the same rates as to others. See page 97.

OTHER EXPENSES.

Library Fee (if Library is used), by the year	$3 00
Rent of Piano, one hour each day, by the term	3 00
Rent of Piano, two hours each day, by the term	5 00
Rent of Piano, each additional hour, by the term	2 00
Rent of two-manual organ, one hour each day, by the term,	10 00

Students will be accepted only on payment of a full term's tuition. No deduction will be made for absence from lessons, except on account of prolonged illness.

DEPARTMENT OF ART AND DESIGN.

The relation of this Department to the general work of Colorado College is in the main similar to that of the Conservatory of Music. It is under the charge of a Director. The object underlying the general plan of the work of this Department is to give the student a broad, intelligent comprehension of the requirements of good drawing, both in outline and in light and shade. The aim is to make the instruction as largely individual as possible. Students are encouraged to make an early choice of some special branch of study, an effort being made to advance the student as rapidly as is consistent with thorough knowledge and proficiency.

COURSE OF INSTRUCTION.

The course of instruction includes free-hand drawing from geometrical solids, scroll, fruit and ornament, casts from the antique, natural objects, still life, nature and model, in pencil, charcoal, and crayon.

SPECIAL STUDIES.

Illustrating.—Pen and ink and wash drawing.

Designing.—Wall-paper, textile fabrics, book-covers, metal-work and posters.

Painting.—Oil, water-color and pastel.

Out-of-Door Sketching.

Study from Life.

Students are at liberty to enter one or more of the above classes.

Special attention is given to the out-of-door sketching, classes meeting twice a week; also to the life class, meeting two or more times a week as required.

Cast drawing is not made compulsory. Students may enter the life and color classes at the discretion of the Director.

In the first year of the above course of study, one lesson a week is required of students of the Academy (see pages 63, 65, second year of the Latin-Scientific and Scientific Courses). Such students pay only the ordinary Academy tuition fee.

Instruction in Mechanical Drawing is also given on similar terms to students of the College in the course leading to the degree of Bachelor of Science.

Further information in regard to fees, or other matters pertaining to the Department, may be had of the President of the College, or of the Director, William R. Greenbury.

CIRCULAR OF INFORMATION.

LOCATION.

Colorado College is fortunate in its environment. The city of Colorado Springs, the county seat of El Paso county, and the third largest municipality of the commonwealth, is somewhat remarkable for its history and character, and is admirably adapted to be the seat of a college. Founded in 1871, under the direction of men of shrewd foresight and broad views, it has maintained from the beginning a healthy character of morality and culture. Saloons and the attendant destructive influences are absent. Radiating railroad systems, and the recent development of neighboring gold fields, have fostered its wealth. While for its first inhabitants it was indebted largely to Pennsylvania and the more northern Atlantic States, as well as to England, its present population of more than twenty thousand is drawn from all sections of the country, and to some extent from foreign lands. Numerous visitors are attracted hither yearly, both pleasure-seekers and health-seekers, but the invalids are so far outnumbered that the place has none of the depressing influence so often observed at noted health resorts. It is fully supplied with the conveniences of city life, yet the lover of nature might seek far before finding a spot more favored. The mountains are close at hand and their serrated line occupies about one-third of the horizon. In the center of the range, and at an air distance of less than a dozen miles, stands the renowned Pike's Peak. Its summit is reached by a cog-railway, as well as by bridle-paths and by an excellent carriage road. About its base are numerous canons, and in one of these, around a celebrated group of mineral springs, has grown up the city of Manitou. The climate of Colorado Springs has attained a world-wide reputation. Its curative qualities consist largely in the opportunity for outdoor exercise, afforded by the great number of fine days and in the dryness and rarity of the air which add a quality exhilarating to all and regarded as a specific in cases of malarial diseases, asthma, and incipient phthisis. Students unable to work in other climates may here continue their studies, while at the same time making a permanent gain in health. This plan has been successfully carried out in numerous instances.

COLLEGE BUILDINGS.

The buildings of the College are situated on a tract of land, including about fifty acres, which, by reason of the growth of the city, has come to have nearly a central location. The most important are the following:

Palmer Hall, the oldest building on the campus, was first occupied in 1880. It contains, in addition to lecture-rooms, the Chemical, Physical and Biological Laboratories, the Society Hall (used for the meetings of students' societies), and the Museum, a description of which may be found on page 83.

The Library, given in 1894 by the late Mr. N. P. Coburn, of Newton, Mass., and erected at a cost of $50,000, is an edifice of great architectural beauty, and admirably adapted to its purpose. It is of the "Peach Blow" sandstone of Colorado, and is roofed with red tile and copper mountings. The interior, with its ceiling twenty-six feet high, its red oak woodwork, its picturesque galleries, its inviting alcoves, its great stone fireplaces, is exceedingly attractive. Long arched windows, commanding views of the mountains and plains, extend from floor to ceiling. A full-sized cast of the "Winged Victory" of Samothrace stands at one end of the main hall. It was given in 1894 in memory of the Rev. Daniel P. Noyes and Helen McGregor Noyes, his wife, by their three childrein, Miss M. McG. Noyes and Mr. Atherton Noyes (both then members of the College Faculty), and Mr. Edward P. Noyes, of Boston. In one of the recesses is a fine marble bust of Antinous, presented by Mrs. H. L. Ballou. A large case, containing Mr. A. L. Dickerman's collection of rare and valuable Indian curiosities, adds to the interest of the room. The well-lighted basement, designed to serve ultimately as a stack room, is at present furnished with pews of natural oak, and is used as the College Chapel.

THE PRESIDENT'S RESIDENCE, at the northern boundary of the campus, is a commodious building, purchased by the Trustees in 1888.

THE ASTRONOMICAL OBSERVATORY is the gift of Henry R. Wolcott, Esq., of Denver, and was completed in June, 1894. On the lower floor is a well-appointed lecture-room, with an adjoining study, and two smaller rooms designed respectively as a transit room and photographic dark room. Upstairs is the dome-room, containing the equatorial telescope, supported on a stone pier. The flat roof is an excellent place for naked-eye observation of the heavens.

THE GYMNASIUM, built by the students of the College in 1891, contains an excellent assortment of apparatus. See "Physical Training," p. 53.

COLLEGE RESIDENCES.

HAGERMAN HALL is a substantial stone building, built in 1889, and used as a residence for young men. Beside the students' rooms, which are well lighted and attractive, it contains a dining-room which can accommodate a hundred and fifty persons, as well as the Y. M. C. A. reading-room, where are many daily and weekly papers and magazines. In the upper story is the "Weather Bureau" office (see p. 83), while the lowest floor affords at present a lodgment to the studio in which the instruction of the Art Department finds its center. The dining-room is now used by a young men's boarding club.

MONTGOMERY HALL was erected and furnished in 1891 by the Woman's Educational Society, and presented free of debt to the College. It provides a comfortable and attractive home for twenty-six young women, students of the Academy, and is equipped with all modern appliances for their convenience. Board and rooms are furnished at low prices.

TICKNOR HALL, the generous and beautiful gift of a friend of the College, was opened as the home for the young women of the College classes in January, 1898. Its comfort and conveniences are the result of careful study of the most perfect of the recently built dormitories for women. Besides thirty students' rooms, made especially attractive by wide windows and roomy window seats, it contains the College dining-room, drawing-rooms and guest-rooms, an infirmary, capable of complete isolation, and a large study-room, comfortably furnished and provided with reference books, for the use of all the young women of College and Academy.

All of the foregoing buildings, except the Gymnasium, are of stone. Heat and electric light are furnished to all from a central plant upon the College grounds.

THE PERKINS MEMORIAL.

During the summer there will be completed a very important addition to the equipment of the College. A large stone building is being erected which will be the home of the Conservatory of Music and the Department of Fine Arts. In addition to practice and lecture rooms, it will contain a large auditorium which will be used for religious exercises, concerts, lectures and art exhibitions. This building will be on the College Campus, near the Coburn Library, and is the gift of the late Willard B. Perkins of Colorado Springs.

LIBRARY.

The beautiful new building in which the Library of the College is housed has been elsewhere described (p. 78).

The number of volumes on the Library shelves amounts to upwards of twenty thousand, with several thousand pamphlets in addition, not including unbound periodicals. The leading literary and scientific journals are regularly received, as are also the United States Government publications and those of the State of Colorado. Of United States documents, the library now has a well-arranged collection of about four thousand volumes, including the records of Congress complete from 1847 to date, and many valuable records for the period 1774-1837. These documents are arranged on the plan adopted in the library of the Superintendent of United States Documents at Washington, thus making available all the cataloguing required by law to be done there.

The Medical Alcove was originated in 1894 by the generosity of the late Dr. B. F. D. Adams of Colorado Springs, who presented to the College his extensive medical library. The El Paso Medical Society maintains the efficiency of this department by contributing the transactions of Medical Societies and other standard works purchased out of the funds of the Society for the use of its members. In July, 1896, moreover, the collection of works on medicine was much enriched by the gift of two hundred and fifty volumes and three hundred pamphlets from the late Dr. E. C. Kimball, of Colorado Springs.

With the commencement of the year 1896, a new departure in the Library management was inaugurated. The control of the Library was vested in a Board of twenty-five members, composed partly of members of the Faculty and Board of Trustees, and partly of ladies and gentlemen not connected with the College. Simultaneously with the creation of this Board, the Library was opened as a circulating library to residents of Colorado Springs and vicinity. In the absence of anything like an adequate public or subscription library in the town, it was thought that the educational advantages afforded by access to the best books in literature, history and science might be extended to all citizens of Colorado Springs, without detriment to the interests of the students and teachers of the College. Access to the shelves is permitted, and all the privileges of the Library, including the use of all the current magazines and periodicals taken by the College, are open to public on payment of the same small fee required of College students. The library is open from 8:30 A. M. until 6 P. M.

The "Coburn Library Book Club," organized in November, 1897, has met with remarkable success. The objects of this club are to provide its members with all the best new books published, and to give these books to the Library at the end of twelve months. Its membership fee is $5 a year, and includes the full privileges of the Coburn Library. It has already a membership of over seventy, and has purchased more than two hundred books.

The ready response of the people of Colorado Springs to the Librarian's request for back numbers of magazines to complete files has been especially gratifying. The complete list of donors to the Library during the year is too long to be reproduced here.

READING ROOMS.

In connection with the Library is a Reading Room for the use of students and friends of the College, where the current magazines of literature and science, as well as a number of leading newspapers, may be consulted. The young men have also the benefit of a similar room in Hagerman Hall, under the control of the Young Men's Christian Association of the College, while for the young women a study and reading-room is provided at Ticknor Hall.

LABORATORIES AND APPARATUS.

The Laboratories of the College supply the means for thorough and practical training in the scientific branches of the curriculum.

A good telescope of four inches aperture, equatorially mounted on a tripod, was presented to the College in

September, 1892, by Henry R. Wolcott, Esq., of Denver. This has since been transferred to the Observatory, built by the generosity of the same donor, and has been placed on a pier and provided with a driving-clock. A new observing chair adds to the convenience with which the instrument is used.

A Meteorological Observing Station is maintained by the College, and daily records are made and reported to the officers of the United States Weather Bureau. A monthly report is also made to the Health Department of Colorado Springs. The instruments now in use are dry and wet bulb thermometers, a maximum and a minimum thermometer, a Richards thermograph, a mercurial barometer, a self-registering anemometer, an anemoscope, and a rain and snow gauge.

The College owns a fine stereopticon, operated by the calcium light, and available for use by all departments of instruction in presenting such topics as are suitable for pictorial illustration, with about six hundred selected photographic views, covering many subjects.

MUSEUM.

Within the past few years the condition of the Museum has been much improved by the increased space rendered available through the transfer of chapel and other public exercises to the Coburn Library, by the enlarged facilities for the display of collections in new exhibition cases, and by various donations and loan collections that have been received. But, with the rapid growth of the College, a part of the exhibition space has had to be given up again to recitations. A building especially planned for the natural sciences is now an urgent necessity.

DONATIONS.

By far the largest and most important contribution that has been made to the Museum during the past two years is a gift from General William J. Palmer and the Colorado Springs Company, who have purchased and donated to the College the large paleontological collection that formerly constituted the private cabinet of Professor Cragin, thus permanently securing to the institution some eight thousand specimens from Colorado, Kansas, Indian Territory, Oklahoma, Texas, and other Western and some Eastern States. The collection contains some mineral and zoological specimens, but is chiefly valuable for the extent and importance of its paleontological material, which includes remains of Pliocene horses and llamas, Miocene rhinoceroses and mastodons, Cretaceous saurians, Tertiary fishes, and a large series of shells, echinoderms, and other invertebrates from the lower Cretaceous, besides many other interesting specimens. This collection is of especial scientific importance, not only as supplying a large part of the geological record not otherwise represented in the Museum, but also as being the elaborated result of years of research and as containing the types of many new species and some new genera of fossils, both invertebrate and vertebrate. Among these type-fossils, the most important is the large plesiosaurian reptile, Trinacromerum, the type of a new genus and species discovered in the Cretaceous rocks of Kansas, described by Professor Cragin in the American Geologist in 1888, and now of frequent mention in paleontological literature.

The College feels that it is impossible to express too strongly its appreciation of the value of this gift, or to commend too highly the insight into the need and opportunity of science in the west displayed in this practical recognition of the claims of West-American geology by these generous friends of the College, and especially by General Palmer, who took the initiative by offering to contribute personally half of the cost. The Department of Geology is frequently in receipt of communications from scientific investigators, asking for the temporary use of parts of this collection, and Mr. T. W. Stanton, Paleontologist for Mesozoic Geology in the United States National Museum, has recently visited the College in order to examine the large suite of Lower Cretaceous fossils, in aid of researches which he is conducting for the United States Geological Survey. The College is thus already becoming recognized as a source of information on the great geological and evolutional problems of the West, and its position as a center of such information will become more important in proportion as the foundations of its Museum are strengthened by such gifts and by endowment for museum-building and research.

The Museum is indebted to the well-known mining geologist, Prof. George H. Stone, for a collection of rocks of the Cripple Creek mining district, supplementary to that which he presented last year. Prof. Stone has spared no pains to make a collection representative of the district as a whole, and the suite now possessed by the College is believed to be second to none. As soon as room and cases can be provided, the entire suite will be placed on exhibition. An important part of it, already displayed in a case devoted exclusively to it, will be especially appreciated by all who are interested in the great gold camp, and by those who wish to add to their knowledge of local scientific matters. It includes rhyolites, trachytes, andesites, phonolites, basalts, diorites, volcanic tuffs, breccias and conglomerates, ores, vein-stuffs, etc.—altogether 140 hand-trimmed specimens.

Of the current year, the most important acquisition is the Educational Series of Rocks, received from the United States Geological Survey. This is a systematic collection of unaltered and metamorphic rocks, including those of mechanical, chemical, organic and igneous origin, together with a few specimens illustrative of special geological processes. It includes 156 numbers and is accompanied by a printed catalogue of the localities from which the specimens were derived. This collection, the J. H. Kerr donation (Ward College collection) of rocks and minerals, the New Hampshire Geological Survey collection, the G. H. Stone collection of Cripple Creek rocks, and a large miscellaneous collection of rocks and minerals, chiefly from Rocky Mountain localities, constitute the museum equipment in inorganic geology.

The College makes grateful acknowledgment also of the following donations:

From Rev. Henry J. Bruce, through the kind offices of Prof. George N. Marden—A Tailor Bird's nest; found in Mr. Bruce's garden, at Satara, India.

From Mrs. J. B. Crane—A specimen of wood from one of the Cedars of Lebanon at Warwick Castle, England.

From Mr. H. H. Emrich—A perfect specimen of *Scaphites nodosus* and a valve of a large Inoceramus obtained in the Fort Pierre shales west of Roswell, Colo.

From Mr. R. S. Briscoe, Jr.—A fragment of a mammoth femur, found near Colorado City.

From an unknown donor—A stuffed skin of the parrot called "Rose Hill Broadtail" (*Platycercus Eximius*), of New South Wales.

From Mr. G. W. Hammond—A collection of remarkable concretions gathered from various Eastern States.

From Mrs. W. F. Slocum—Tail plumage of a Lyre Bird from Australia.

The collection made by Tillotson Academy at Trinidad, which became the property of the College upon the union of the former with Cutler Academy, includes some zoological, ethnological, and archaeological, as well as numerous geological, specimens.

The College still has the use of the following:

LOAN COLLECTIONS.

Deposited by Mr. A. L. Dickerman—(1) A large collection of wearing apparel, ornaments, weapons, implements, etc., of various tribes of North American Indians; (2) a collection illustrating Alaskan Indian handiwork. Both of these collections contain many rare and unique specimens.

Deposited by Mr. J. C. Devin—(1) A collection of minerals; (2) one of Japanese art; also (3) some miscellaneous specimens. The first of these collections, besides containing some fine minerals, is especially rich in agates, and includes a fine suite of specimens from the famous petrified forest, "Chalcedony Park," on Lithodendron creek, near

Holbrook, Arizona. The Japanese collection contains some very valuable articles.

The collections have outgrown the accommodations provided for them, and this to such an extent as emphasizes the pressing necessity for a building in which to utilize them properly. The present cases are full and there is no available room for new ones. Separate and commodious museum rooms, equipped with suitable exhibition cases, are needed for zoology, geology, ethnology and archaeology, as well as a number of smaller rooms for laboratory work in geology, paleontology, mineralogy, lithology, zoology, physiology and botany. A building for these and other scientific purposes is vital to the development of the work of the institution.

COLORADO COLLEGE SCIENTIFIC SOCIETY.

The Colorado College Scientific Society holds monthly meetings in the College Chapel. The objects of the society are: "The discussion of recent scientific results, the promotion among its members of scientific inquiry and investigation, and the publication of the more important papers read at the meetings." It was organized in January, 1890, and has already done some excellent work. Six annual publications, entitled "Colorado College Studies," have been issued, and a considerable number of exchanges have been secured from associations of a like nature, including some foreign societies. The attention which the "Studies" have received from scientific men everywhere encourages the society to continue this publication. The list of articles hitherto published is as follows:

VOLUME FIRST.

- A Rigorous Elementary Proof of the Binominal Theorem —*F. H. Loud.*
- On Certain Cubic Curves.—*F. H. Loud.*
- A Study of the Inductive Theories of Bacon, Whewell and Mill.—*Benj. Ives Gilman.*
- A Mathematical Text-Book of the Last Century.—*F. Cajori.*
- Horace, Od. III, 1, 34.—*George L. Hendrickson.*

Quenti Ciceronis Commentariolum Petitionis XI, §43, (B. et K. Vol. IX, p. 487).—*George L. Hendrickson.*

VOLUME SECOND.

Witchcraft Among the Hindus.—*Dr. H. W. Magoun.*

Protection for Congressional Minorities.—*W. M. Hall.*

Pulsations in the Aortic Arches of the Earthworm.—*Miss M. R. Mann.*

Dialetic Studies in West Virginia.—*Dr. Sylvester Primer.*

The Study of Diophantine Analysis in the United States.—*F. Cajori.*

The Elliptical Functions Defined Independently of the Calculus.—*F. H. Loud.*

On Two Passages in the Crito.—*Dr. H. W. Magoun.*

Calibration of Burettes.—*D. J. Carnegie.*

On a Passage in the Frogs.—*Dr. H. W. Magoun.*

Note on the Hadley-Allen Grammar.—*Dr. H. W. Magoun.*

Historical Note on the Differentiation of a Logarithm —*F. Cajori.*

A Mathematical Error in the Century Dictionary.—*F. Cajori.*

VOLUME THIRD.

The Etymologies in the Servian Commentary to Vergil.—*Dr. W. P. Mustard.*

Notes on Jefferson's Draft of the Ordinance of 1784.—*W. M. Hall.*

Some Notes on Blaydes' Nubes.—*Dr. A. T. Murray.*

On a Passage in Euripides' Iphigenia Taurica.—*Dr. A. T. Murray.*

Draper's Barograph.—*Florian Cajori.*

The Conditional in German.—*Dr. S. Primer.*

VOLUME FOURTH.

The Circular Locus.—*F. H. Loud.*

On the Eight Lines Usually Prefixed to Horat. Serm. 1, 10.—*Dr. W. P. Mustard.*

State Bank Notes.—*W. M. Hall.*

VOLUME FIFTH.

The Ethical Problem of the Public School System.—*W. F. Slocum.*

The Origin and Use of the Natural Gas at Manitou, Colorado.—*Wm. Strieby.*

Vertebrata from the Neocomian of Kansas.—*F. W. Cragin.*

The Choctaw and Grayson Terranes of the Arietina.—*F. W. Cragin.*

Descriptions of Invertebrate Fossils from the Comanche Series of Texas, Indian Territory and Kansas.—*F. W. Cragin.*

Herpetological Notes from Kansas and Texas.—*F. W. Cragin.*

VOLUME SIXTH.

The Permian System in Kansas.—*F. W. Cragin.*

On the Stratigraphy of the Platte Series, or Upper Cretaceous of the Plains.—*F. W. Cragin.*

Preliminary Notice of Three Late Neocene Terranes of Kansas.—*F. W. Cragin.*

The subjects of papers from October, 1897, to May, 1898, are as follows:

1. DR. E. G. LANCASTER, "Warming Up."
2. PROF. F. H. LOUD, "New Proof of the Addition-theorem in Trigonometry."
3. DR. F. CAJORI, "The Evolution of Physical Laboratories in Europe and America."
4. PROF. WM. STRIEBY, "Plans for Laboratories in Colorado College."
5. PRES. WM. F. SLOCUM, "The Scientific Basis of Ethical Force."
6. PROF. F. W. CRAGIN, "The Discovery of Marine Jurassic Rocks in Southwestern Texas."
7. PROF. F. H. LOUD, "On Some Cosmological Speculations of Sir Robert Ball."
8. PROF. L. A. E. AHLERS, "The French Ideas of Morality in the Nineteenth Century."
9. PROF. N. B. COY, "A Phase of Recent Criminal Tendency."

Students are encouraged to attend the meetings of the society.

The secretary of the society, to whom all correspondence, exchanges, etc., should be addressed, is Professor Florian Cajori.

UNIVERSITY EXTENSION LECTURES.

University Extension work at Colorado College was inaugurated in March, 1894, by the organization of classes in special subjects for the benefit of those not wishing to undertake regular college work.

Extended courses were given in Geology by the late Professor Surls, and in the Duties and Privileges of Citizenship by the late Professor Hall; while popular lectures on philosophical and scientific subjects were delivered by President Slocum and by Professors Cajori, Cragin and Strieby.

During the succeeding College year, October to December, 1894, the following courses were delivered:

A Study of Four Religions.—*President Slocum.*

Early English Life and Literature.—*Professor E. S. Parsons.*

An Introductory Course in Psychology.—*Miss Noyes.*

Talks on Astronomical Subjects, with Illustrations by the Telescope.—*Professor F. H. Loud.*

In 1895-96, by the courtesy of the School Board, and with the hearty co-operation of Superintendent Pattison and Professor Turnbull, most of the lectures were delivered in the High School Building. They were opened by Professor Parsons' course in Early English Life and Literature, repeated by request. Professor Ahlers gave four lectures, three upon Faust, and one upon Modern French Novelists; other popular lectures were delivered by Professors Strieby, Cajori, Langton, Fraser and Walker. The total number was eighteen.

A year later, with the same friendly co-operation of the public school officials, lectures were again given in the High School Building. They embraced six lectures on German Life and Letters, by Prof. L. A. E. Ahlers; six lectures on the Norman Conquest, by Prof. E. S. Parsons; and six lectures on Socialism, by Dr. Francis Walker.

During the current year, with a view of reaching audiences at greater distances, the work of University Extension was organized on a somewhat larger basis, Dr. E. G. Lancaster taking the general charge. The following courses of lectures were offered to the election of classes:

English Life and Literature—Prof. E. S. Parsons.

1. Six lectures on the Norman Conquest.

2. Six lectures on Early English Life and Literature.
3. Two lectures on the Arthurian Legend.

German Life and Letters—PROF. LOUIS A. E. AHLERS.

1. Six Lectures on German Life and Letters.
2. Three lectures on Goethe's Faust.
3. Modern French Novelists.

History of Physics—DR. FLORIAN CAJORI.

Classic Life—PROF. GEORGE A. H. FRASER.

1. Greek Views of Death.
2. Roman Views of Death.
3. Women in Rome.

Psychology and Pedagogy—DR. E. G. LANCASTER.

1. Twelve lectures on Psychology [including Child and Adolescent Psychology].
2. Twelve Lectures on Pedagogy.

Socialism—DR. FRANCIS WALKER.

2. Six lectures on Socialism.

Under this arrangement, courses of lectures and other instruction have been given during the current year, or are now in progress, as follows:

BY DR. E. G LANCASTER, *at Pueblo*, to a class of 60, twelve lectures and text-book instruction in Psychology.

At Colorado Springs, to a class of 22, the same course, beside six lectures on modern educational topics, given to teachers under the auspices of the School Board, and six public lectures on Adolescence, delivered, at the instance of the ministers of the city, in All Souls' Church.

At Denver, to a class of 21, the course in Psychology as above, and a course in Child-study to the Educational Department of the Woman's Club.

BY PROF. E. S. PARSONS, *at Colorado Springs*, four lectures on Modern Literature.

1. Preparation for the Victorian Era.
2. Tennyson's Idylls as a Phase of the Arthurian Legend.
3. Browning Once More.
4. Modern Realism.

BY VARIOUS LECTURERS, *at Pueblo*, a course of seven public lectures in the First Congregational Church, as folfows:

March 5—The Arthurian Legend .....Prof. Parsons.
March 11—Dust.......................Prof. Cajori.
March 18—Goethe's Faust............Prof. Ahlers.
March 26—Memory Culture ....Dr. Lancaster.
April 1—Trusts ....Prof. Walker.
April 15—Disinfectants...............Prof. Strieby.
April 23—Achievement ....Pres. Slocum.

In addition, single lectures have been given at various places in Colorado, by Pres. Slocum, Dr. Lancaster and Prof. Parsons.

RELIGIOUS LIFE.

As was stated in the introduction to the Bulletin, it has been the aim of the College authorities, from the outset, to build up in Colorado Springs a distinctively Christian College; one which, while maintaining the best standards of intellectual work, will recognize Christian character as the highest posssible attainment and the religious spirit as the most potent inspirer of mind and soul alike. This result has been sought in no sectarian spirit. No student is ever influenced in any way, even the slightest, toward any particular denomination. When students come to the College, inquiry is at once made as to their denominational affiliations and what churches in the city they desire to attend; and lists are sent to the pastors of these churches with the request that they seek the students out and bring at once about them the influence of the church home. The students are received into the city churches, and in a very short time are found taking active part in their religious work.

Various services at the College voice and shape the religious spirit. While there are no regular church exercises on Sunday, it has been the custom during the past two or three years to hold a few special services on

Sunday afternoon, at which well-known and representative ministers of different denominations throughout the State address the students and all who choose to attend. The chapel is usually crowded at these services. A series of six has been planned this year to be held, one each month, through the winter and spring. The following is a list of the preachers appointed by the Trustees for this year:

The Rev. James E. Sentz, of the Central Presbyterian Church, Denver; the Very Rev. John Spalding, D. D., Bishop of Colorado; the Rev. William W. Dumm, of the Congregational Church, Greeley; the Rev. George B. Vosburgh, of the First Baptist Church, Denver; Chancellor McDowell, of the University of Denver; the Rev. Barton G. Aylesworth, of the Central Christian Church, Denver.

Five days in the week, at 9:15 in the morning, all the students gather with the Faculty, and such friends from outside as may wish to attend, in the chapel for morning prayers. The service is not long, but is impressive, with a hymn, responsive reading, chant and prayer, followed by the Lord's Prayer and benediction. Once a week the service is shortened for the President's ethical talk, in which he discuses questions bearing on the student life, taking up such subjects as truthfulness, courtesy, large-mindedness, pure-mindedness, reverence. These talks have had a marked influence upon the standards and tone of the College life.

The Faculty and students meet also in a College prayer meeting held every week on Tuesday evening, from 7:15 until 8 o'clock.

Once a year the students and Faculty unite in the exercises of the Day of Prayer for Colleges, all usual college exercises being suspended for the day. A prayer meeting is held at an early morning hour, then follows at 11 o'clock the public service in the chapel, with an address by some speaker from outside the College. During the day, classes often hold meetings by themselves, and in the evening all unite again in a prayer and conference meeting. A deep earnestness always pervades the exercises of the day.

The religious organizations, under the control of the students themselves, are very flourishing. The Young Women's Christian Association has a membership of fifty, and holds a Sunday afternoon meeting with an average attendance of thirty. Every second meeting of the month is a union missionary meeting with the Young Men's Christian Association. Many of the young women are working under the direction of the Society in mission and sewing schools and other charitable work. Clothes and food have been provided by them for a number of poor families. A specific work undertaken by the Society is the support of a missionary in China. In addition to this work, the young women give effectual aid to the young men in their various lines of Christian activity. Three young women were sent last summer to Lake Geneva, Wis., as delegates to the Y. W. C. A. conference.

The Young Men's Christian Association numbers fifty-five. It holds a Sunday afternoon meeting with an average attendance of thirty-five, which would be larger if many of the members were not engaged at that time in religious work. It helps the life of Hagerman Hall by supplying the reading room with the best current periodicals and by conducting prayers every evening after supper. It has organized four classes for Bible study and two for the systematic study of missions. Young women share in the latter classes. The Bible classes have a membership of forty-five. Besides this purely local activity, and the assistance the young men give the churches of which they are members, they are carrying on a vigorous work in several fields. Twice a month they have charge of the Sunday services at the County Jail. The young men also support, by a yearly contribution of $60, a native worker in India. Three delegates were sent last summer to Lake Geneva, Wis.

At the beginning of the College year members of the Associations meet all trains and welcome new students.

The Student Volunteer movement has entered the College, and is represented by an earnest band of twelve, six of whom are young women. Its members, who are pledged to go to the foreign field if God opens the way, endeavor by every means to bring before the students and the various young people's societies in the city and its vicinity the importance of missionary work.

ALUMNI ASSOCIATION.

The Alumni Association of Colorado College is becoming one of the important features of the College. Its membership consists of those students who have attended the College long enough to have an interest in its welfare, and who desire to keep up the acquaintance of graduates and former students.

The Association holds its meetings every year during Commencement Week, generally having a banquet following the business meeting. At this meeting questions of interest to the College and the Association are discusssed.

The most prominent line of work at present is the raising of a Scholarship Fund.

OFFICERS.

Frederick R. Hastings	President.
Nettie M. Carey	1st Vice-President.
Jonathan T. Rorer	2nd Vice President.
Rob't. D. McLeod	3rd Vice-President.
Frances Bayley	4th Vice-President.
Mrs. H. H. Seldomridge	5th Vice-President.
Clarence R. Arnold	Secretary.
Oliver H. Shoup	Treasurer.

LITERARY SOCIETIES AND ORATORICAL CONTESTS.

The three Literary Societies of the College and that of the Academy furnish opportunity for independent work and drill in public debate and parliamentary practice. A hall, handsomely furnished by the students themselves, is occupied by the College Societies.

The Apollonian Club holds an annual contest in debate for a prize of fifty dollars. The prize at the last contest was won by Messrs. G. B. Hawkes, '98, and F. S. Caldwell, 1900.

An Oratorical Contest is held each year, as mentioned on page 53, and is open to all members of the College. The winner receives a prize of twenty-five dollars.

A Prize Declamation Contest is held at the close of each Academic year, and is open to members of the Freshman Class. The prize at the last contest was awarded to T. E. Nowels, Miss Clyda Moses taking second place.

STUDENTS' PUBLICATION.

The *Colorado Collegian*, a fortnightly paper, is issued by an editorial board, elected from the College classes with one additional member from the Academy.

GLEE CLUB.

A glee club of young men has been organized during the year and has arranged for (or given) concerts in Walsenburg, Trinidad, Pueblo, Longmont, Eaton, Greeley, Fort Collins, Boulder, Denver and Colorado Springs. Mr. Clarence R. Bowers of the Conservatory is the Musical Director of the Club.

SPECIAL STUDENTS.

Special students will be received, at the discretion of the Faculty, into such classes as they are qualified to enter. It is the rule of the College that such students must attend the examinations as well as the ordinary recitations of their classes, subject to the same provisions as other students.

Several of the courses of lectures which form part of the College instruction, particularly in the department of Philosophy, are open to the public on payment of a small fee, and, of course, without any requirement of examination.

EXPENSES.

Tuition, by the year	$35 00
Matriculation fee	5 00
Library fee	3 00
Table board in Montgomery Hall,* a week	2 50
Table board in Hagerman Hall (club for young men), a week,	2 50
Table board in Ticknor Hall†, a week	4 00
Rooms,‡ warmed and furnished, a week, from.......$1.00§ to	2 00

COLLEGE BILLS.

The term bills are issued at the beginning of each half-year, and are payable immediately, unless special arrangements are made with the President.

Students who leave before the end of the term pay full tuition, except under very unusual circumstances.

PECUNIARY ASSISTANCE.

Scholarships.—The income of the following scholarships is devoted to the aid of worthy students who may need assistance in completing their course, and who, by their scholarship and character, prove themselves worthy of such assistance.

The Thomas Davee Scholarship of $500, established by the late Mrs. T. V. D. Mitchell, of West Minot, Maine.

The Rice Scholarship of $700, established by friends of the Rev. Chas. B. Rice, D. D., of Danvers, Mass.

---

*At the young women's boarding club.

†Ticknor Hall is a residence for young women, but any person connected with the College may secure table board there.

‡Students rooming in Hagerman, Montgomery or Ticknor Hall are required to furnish towels, bed linen and blankets.

§The number of $1.00 rooms is limited. Others may be had at $1.25, $1.50, $1.75 and $2.00.

The Currier Scholarship of $1,000, founded by the late Hon. Warren Currier, of St. Louis, Mo.

The Edwards Scholarship of $500, given by the Congregational Church of Wellesley Hills, Mass.

The Mary Caroline Quincy Scholarship of $500 given by the late Mr. George Henry Quincy, of Boston, Mass.

The Lawrence Myers Scholarship of $1,000, and the Lucy Platt Myers Scholarship of $1,000, given by Mrs. Laetitia M. Myers, of Plainfield, New Jersey.

The Fay Scholarship of $1,000, founded by the late Eliza A. Fay, of Boston, Mass.

A Scholarship of $1,000, given by Mr. William F. Richards, of Newport, N. H., through the Woman's Educational Society of Colorado College.

The Willard B. Perkins Scholarship of $7,000. The second Willard B. Perkins Scholarship of $7,000. These two scholarships were given by the late Willard B. Perkins, of Colorado Springs.

Several other scholarships are supported by annual subscription.

SELF-SUPPORT.—Good scholars have opportunities for private teaching. Capable and faithful young men can find work in town, and there are many sources from which young women may derive an income while continuing their studies. Some students have paid all their expenses by current earnings.

THE WOMAN'S EDUCATIONAL SOCIETY OF COLORADO COLLEGE.

This Society was formed in April, 1889, by the women of Colorado Springs. Its purpose, as expressed in its constitution, is "to give physical, intellectual and spiritual aid to students in any department of Colorado College." This Society built Montgomery Hall, and has been of service in many ways to the College.

The members of the Society endeavor to come into personal relations with the students, especially with those who are supporting themselves ; they try to find work for them, and by friendly advice assist them in their efforts to secure an education. The membership fees of the Society go to form a beneficiary fund, from which loans are made on the following conditions:

First.—Loans may be made to students who have been in the College for one term and are recommended by the Faculty as in every way deserving of such aid.

Second.—No student shall be allowed to incur an indebtedness to the Society of more than $300.

Third.—Students may receive loans without interest until their connection with the College ceases; after that time their notes shall draw interest at four per cent.

The officers of the Society for the current year are:

President—Mrs. William F. Slocum.
First Vice-President—Mrs. Franklin E. Brooks.
Recording Secretary—Mrs. Charles E. Noble.
Corresponding Secretary—Mrs. William Strieby.
Treasurer—Mrs. Florian Cajori.

THE NEEDS OF THE COLLEGE.

Colorado College, never more truly than to-day, has great and pressing needs. Since the completion of the endowment fund of two hundred thousand dollars, the College stands upon a firm financial basis; but greater facilities in the way of equipment are an immediate necessity. The attention of the public was not called to these considerations while the permanent financial status of the College was in any degree uncertain; but now that this has been made secure, the Trustees and Faculty feel it imperative that the opportunity for service which lies before the College, and the conditions by which this opportunity can be embraced, be understood. The urgent demands of the hour should be realized, not only by those who in previous years have nobly aided the

College, but by all persons who are interested in the cause of learning, in the progress of science, and in the growth and development of the best educational institutions as a safeguard for republican government. Among the needs which force themselves upon attention are the following:

INCREASED ENDOWMENT FUNDS.

Endowment of Professorships.—It is greatly to be desired that the chairs in the various departments be permanently endowed. This need has come to be urgent by reason of the rapid growth in numbers and the consequent demands for instruction and for more complete courses.

Funds for the Library.—The permanent fund for purchasing books is too small, and both the regular work of the College and the value of the Library to the city are seriously hampered by this limitation. The College appeals earnestly to lovers of books for money to be used for this purpose, either to be added to the permanent fund, or to be immediately expended for the pressing demands of the present moment.

Special Funds for Scientific Research.—Money to be devoted to scientific work in special lines is very greatly needed. The opportunities of Colorado College in this direction are unusual, because of the geographical, meteorological and geological situation. The attention of those interested in the advancement of science is earnestly called to this fact and to the statements in the article, "Museum," pp. 83–87.

Physical Apparatus.— The Physical Laboratory is equipped with some very good apparatus, but a great deal more is needed for effective work in advanced classes and for the purpose of original investigation. With a few thousand dollars our facilities could be immensely enlarged.

Astronomical Instruments.—The Observatory needs a transit-instrument, an astronomical clock, star-charts and several small pieces of apparatus for use in conjunction with the equatorial telescope. In the latter direction gifts of very moderate amounts would be immediately useful.

NECESSARY BUILDINGS.

A Science Building.—The present accommodations afforded the Departments of Chemistry, Physics, Biology and Geology are painfully inadequate. The laboratories are so crowded that the work now done is accomplished under difficulty, while greatly desired extensions are prevented. The need of increased space for collections has elsewhere been noticed. A large building for all purposes of natural science was, even last year, very seriously needed; but this year the demand is still greater. It is to be hoped that some lover of science will soon give to Colorado College this much-needed building.

Residence Hall for Young Men.—The generous donor of Ticknor Hall has supplied the need, which a twelve-month since was most pressing, of a home for the young women of the College, but it is of great importance that a similar benefaction should soon be extended to the young men, as Hagerman Hall is no longer sufficient for their needs.

SCHOLARSHIP FUNDS.

The Trustees desire to emphasize the fact that many young people in a new country are obliged to earn their education by hard and self-denying work. Colorado College needs a large addition to her scholarship funds. Money thus applied tends directly to the profit of the individual and of the country.

FORMS OF BEQUEST.

Those who intend to devise property to Colorado College, or to the Woman's Educational Society, are requested to employ one of the following Forms of Bequest:

"I hereby give, devise and bequeath unto The Colorado College, of Colorado Springs, Colorado, the sum of................dollars."

"I hereby give, devise and bequeath unto The Women's Educational Society of Colorado College, of Colorado Springs, Colorado, the sum of................dollars."

If property other than money is willed, the form should be correspondingly varied.

TWENTY-FIFTH

ANNUAL BULLETIN

OF

COLORADO COLLEGE

AND

CUTLER ACADEMY

COLORADO SPRINGS
COLORADO

1899

COLORADO SPRINGS
THE OUT WEST PRINTING AND STATIONERY CO.
1899

CONTENTS.

PAGE
Announcement, - 5
Trustees, Standing Committees, - 8
College Officers, - 9
Board of Control of the N. P. Coburn Library, - 9
Faculty, - 10
Standing Committees of the Faculty, - 14
Class Officers, - 14
Calendar, - 15
Requirements for Admission, - 16
Entrance Examinations, - 21
Admission to Courses, - 21

COURSES OF STUDY—

Bachelor of Arts, - 22
Bachelor of Philosophy, - 24
Bachelor of Science, - 25
Electives, - 28

DEPARTMENTS OF INSTRUCTION—

Philosophy, - 31
Pedagogy, - 34
Greek, - 34
Latin, - 35
English, - 36
Modern Languages—German, French, Spanish, - 38
Mathematics and Astronomy, - 40
Physics, - 42
Chemistry, - 43
Biology, - 46
Geology, - 47
Economics, - 49
Political Science, - 50
History, - 51
Bible Study, - 52
Expression and Oratory, - 52
Physical Training, - 53
Prizes and Honors, - 55
Schedule of Recitations, - 56

THE CUTLER ACADEMY—

Faculty, - 58
Statement, - 59
Requirements for Admission, - 60
Courses of Instruction, - 61
Honors, - 66
Appendix (Supplementary Readings in English, etc.) - 67

COLORADO COLLEGE CONSERVATORY OF MUSIC—

PAGE
Faculty, 68
Purpose and Scope, 69
Relation to Colorado College, 71
Courses of Study, 71
Free Advantages, 74
Special Features, 74
Expenses—Tuition, Rooms, Board, etc., 74

DEPARTMENT OF ART AND DESIGN, 75

CIRCULAR OF INFORMATION—

Location, 76
College Buildings, 77
Library, 80
Reading Rooms, 81
Laboratories and Apparatus, 82
Museum, 83
The Colorado College Scientific Society, 86
University Extension Lectures, 88
Religious Life, 92
Alumni Association, 94
Literary Societies and Oratorical Contests, 95
Students' Publication, 95
Glee Clubs, 96
Special Students, 96
Expenses, 96
College Bills, 97
Pecuniary Assistance, 97
The Woman's Educational Society, 98
The Needs of the College, 99
Forms of Bequest, 101

ANNOUNCEMENT.

Colorado College is the oldest institution of higher education in the State. In 1874, while Colorado was yet a territory, a College upon a broad Christian foundation was established in Colorado Springs. The authorized announcement for that year contains the following words:

"It is the purpose of the Trustees to build a College in which liberal studies may be pursued under positive Christian influences. . . . The College is under no ecclesiastical or political control. Members of different churches are on its board of Trustees. . . . The character which is most desired for this College is that of thorough scholarship and fervent piety, each assisting the other, and neither ever offered as a compensation for the defects of the other."

From the beginning the Board of Trustees has been composed of leading professional and business men of Colorado, together with a few Eastern men of similar standing, and has ever been animated by the purpose avowed by the original Board.

A grant of land and a promise of $10,000 in money had been made in advance of the organization of the College, in 1873, by the Fountain Company, the founders of the city of Colorado Springs. The Rev. Jonathan Edwards was the first professor and executive officer. The first President, the Rev. James G. Dougherty, was elected in 1875, and was succeeded in the following year by the Rev. E. P. Tenney. From 1885 to 1888 there was no President, but the work of teaching was carried on without interruption. At this time there was only one building on the campus, Palmer Hall, erected in 1880.

In the autumn of 1888, William Frederick Slocum was elected President. The faculty was at once enlarged, the courses reorganized, and Cutler Academy incorporated as an associated preparatory school, in which students have since been trained, not only for Colorado College, but for all the leading institutions of the United States. Within the following two years a hundred thousand dollars was given toward endowment, entirely from within the State of Colorado. Hagerman Hall was built in 1889. In the same year the Woman's Educational Society was organized and began the work of building Montgomery Hall. In 1890 the Colorado College Scientific Society was founded, and the first installment of its annual publication, Colorado College Studies, issued.

Within the current decade, the sum of two hundred thousand dollars has been added to the endowment, and the growth of the College in numbers—a growth uninterrupted by the general financial depression—has been matched by an appropriate enlargement of equipment and activity. Among the marks of advance are the gymnasium, built by the efforts of students; the costly Library building, given by the late N. P. Coburn; the Observatory, the gift of Henry R. Wolcott, of Denver; and Ticknor Hall, completed during the closing days of 1897, as a second dwelling house for young women. The entire cost of this beautiful building, exceeding $23,000, was met by a single donor, who has insisted upon remaining unknown. There will be completed in October another large stone building to cost $30,000, which will be named in honor of a generous donor, the late Willard B. Perkins, "Perkins Memorial." The first floor will be an auditorium, which is to be used for the religious services of the College and other public meetings. This room is to contain a valuable pipe-organ, the gift of Miss Elizabeth Cheney of Wellesley, Massachusetts, in memory of her brother, Mr. Charles P. Cheney, who died at Colorado Springs in 1897. The second story of this building will be occupied by the Department of Fine Arts and the Conservatory of Music. Growth in other directions during the last four years is indicated by the establishment of a course leading to the degree of Bachelor of Science, by the University Extension work, by the addition of an Art Department and by the founding of the Conservatory of Music, which, while preserving its proper relation to the academical departments, successfully maintains an equally high educational standard. While not without needs that are keenly felt, the College has won an assured position, and offers to its students educational facilities of the same grade as are found at Eastern institutions of the higher learning.

TRUSTEES OF THE COLLEGE.

William F. Slocum, *Pres't of the Board,*	Colorado Springs.
George W. Bailey,	Denver.
William P. Bonbright,	Colorado Springs.
Rev. W. H. W. Boyle, D. D.,	Colorado Springs.
John Campbell,	Denver.
Henry Cutler,*	North Wilbraham, Mass.
Rev. James B. Gregg, D. D.,	Colorado Springs.
J. J. Hagerman,	Colorado Springs.
John R. Hanna,	Denver.
Thomas S. Hayden,	Denver.
Irving Howbert,	Colorado Springs.
William S. Jackson,	Colorado Springs.
Horace G. Lunt,	Colorado Springs.
F. L. Martin,	Colorado Springs.
William J. Palmer,	Colorado Springs.
George Foster Peabody,	New York.
M. D. Thatcher,	Pueblo.
Rev. Philip Washburn,*	Colorado Springs.

STANDING COMMITTEES OF THE TRUSTEES.

EXECUTIVE.

J. J. Hagerman, *Chairman*; James B. Gregg, *Secretary*; William S. Jackson, William J. Palmer.

FINANCE.

William S. Jackson, *Chairman;* William P. Bonbright, J. J. Hagerman, Irving Howbert, William J. Palmer.

INSTRUCTION.

James B. Gregg, *Chairman;* George W. Bailey, W. H. W. Boyle, John Campbell, Horace G. Lunt.

GROUNDS AND BUILDINGS.

Irving Howbert, *Chairman;* Thomas S. Hayden, F. L. Martin, William J. Palmer.

(The President of the College is *ex officio* a member of all committees.)

---

*Deceased.

COLLEGE OFFICERS.

William F. Slocum, *President.* James B. Gregg, *Secretary.*
George N. Marden, *Treasurer.*

BOARD OF CONTROL OF THE N. P. COBURN LIBRARY.

Chairman—William F. Slocum, *President.*
Secretary—Miss Frances S. Wiggin, *Librarian.*

Miss A. R. Bell.
Rev. W. H. W. Boyle, D. D.
Rev. E. Braislin, D. D.
Rev. Benjamin Brewster.
Miss Ellen T. Brinley.
Prof. Florian Cajori.
Mr. Louis R. Ehrich.
Rev. W. H. Fish, Jr.
Prof. M. C. Gile.
Mrs. E. C. Goddard.
Mr. Rubin Goldmark.
Rev. Jas. B. Gregg, D. D.
Mrs. J. J. Hagerman.
Mr. C. W. Haines.
Mr. H. C. Hall.
Mr. S. F. Hamp.
Judge H. G. Lunt.
Mr. H. F. Ordway.
Prof. E. S. Parsons.
Mr. J. G. Shields.
Mr. Leslie J. Skelton.
Mrs. W. F. Slocum.
Dr. S. E. Solly.
Mrs. A. E. Touzalin.
Prof. Francis Walker.

FACULTY.

WILLIAM FREDERICK SLOCUM, B. D., LL. D. 24 College Place.

President and Head Professor of Philosophy.

A. B. (Amherst), '74; B. D. (Andover), '78; LL. D. (Amherst), '93; LL. D. (University of Nebraska), '94; Colorado College, '88.

LOUIS A. E. AHLERS, A. B. 911 North Nevada Ave.

Head Professor of Modern Languages and Literatures.

A. B. (Harvard), '94; University of Berlin, '93–'94; Harvard Graduate School, '94–'95; Colorado College, '95.

RUFUS MATHER BAGG, JR., A. B., Ph. D. 1715 Wood Ave.

Instructor in Geology, Mineralogy and Paleontology.

A. B. (Amherst), '91; Ph. D. (Johns Hopkins University), '95; Fellow of the Geological Society of America, '96; member of the Geological Society and National Geographical Society of Washington; Principal of the Lubec High School, '91–'92; Assistant in Geology, Johns Hopkins University, '95–'97; Assistant in Museum, University of the State of New York, '97–'98; Assistant Geologist, Maryland Geological Survey, '96–'98; Colorado College, '98.

SAMUEL JACKSON BARNETT, A. B., Ph. D. 611 N. Tejon St.

Professor of Physics.

University of Chicago, '92–'93; A. B. (University of Denver), '94; Graduate in the School of Astronomy (University of Virginia), '96; Ph. D. (Cornell University), '98; Instructor in Physics and Biology, University of Denver, '94–'95; Assistant in Astronomical Observatory, '95–'96, and Instructor in Astronomy, '96, University of Virginia; University Scholar, Fellow, and Fellow-elect in Physics, Cornell University, '96–'98 and '98; Colorado College, '98.

MAUDE BEMIS. 506 North Cascade Ave.

Instructor in Drawing.

Student under Raphael Collin, Paris, '94–'96; Colorado College, '98.

ERNEST BREHAUT, A. M. Hagerman Hall.

Instructor in Latin.

A. B. (Dalhousie College), '94; A. B. (Harvard), '96; A. M. (*ibid.*), '97; Colorado College, '98.

CHARLES BROOKOVER, M. S. 416 East Yampa St.

Instructor in Biology.

A. B. (National Normal University), '90; B. Ped. (Ohio University), '94; M. S. (*ibid.*), '97; Teacher of Science, Fountain College, Smithville, Tenn., '90–'91; Principal Milton Seminary, Tenn., '91–'93; Instructor in Science, So. Kansas Academy, '94–'95; Scholar in Biology, Ohio University, '96–'97; Instructor in Biology, Ohio University, '97–'98; Colorado College, '98.

FLORIAN CAJORI, M. S., Ph. D. 1119 Wood Ave.

Head Professor of Mathematics.

S. B. (University of Wisconsin), '83; M. S. (University of Wisconsin), '86; Ph. D. (Tulane University), '94; Johns Hopkins University, '84–'85; Assistant Professor of Mathematics, Tulane University, '85–'87; Professor of Applied Mathematics, Tulane University, '87–'88; United States Bureau of Education, '88–'89; Colorado College, '89.

NATHAN BROWN COY, A. B. 512 North Weber St.

Associate Professor of the Classical Languages and Literatures and Principal of the Cutler Academy.

A. B. (Yale), '70; Instructor Fort Washington French Institute (on the Hudson), '70-'71; Instructor Hasbrouck Institute, Jersey City, '71-'73; Principal Preparatory Department, Hanover College, Ind., '73-'74; Classical Instructor, Betts Academy, Stamford, Ct., '74-'75; Professor of Latin, Phillips Academy, Andover, Mass., '75-'76; Department of Classics, Denver High School, '81-'86; State Superintendent of Public Instruction, Colorado, '91-'93; Colorado College, '97.

FRANCIS WHITTEMORE CRAGIN, S. B. 1715 Wood Ave.

Professor of Geology, Mineralogy and Paleontology.

Agassiz Laboratory, Newport, '81; S. B. (Harvard), '82; Professor of Natural History, Washburn College, '82-'91; State Geological Survey of Texas, '92-'93; Colorado College, '91.

P. E. DOUDNA, A. M. Hagerman Hall.

Instructor in Mathematics.

A. B. (University of Wisconsin), '94; Fellow in Applied Mathematics, University of Wisconsin, '94-'95; A. M. (University of Wisconsin), '97; Colorado College, '96.

ABBIE FISKE EATON, L. M. Montgomery Hall.

Instructor in German.

L. B. (University of Wisconsin), '94; L. M. (University of Wisconsin), '95; Instructor in German, Oberlin College, '89-'92; Instructor in German, University of Wisconsin, '95-'96; Colorado College, '98.

M. CLEMENT GILE, A. M. 1121 North Tejon St.

Head Professor of Classical Languages and Literatures.

A. B. (Brown University), '83; A. M. (Brown University), '86; Instructor in Phillips Academy, Andover, Mass., '83-'92; Assistant Professor of Greek, University of Chicago, '92-'94; Colorado College, '92.

RUBIN GOLDMARK. 1117 Wood Ave.

Director of the Conservatory of Music, and Instructor in Harmony, Counterpoint and Composition.

Conservatory of Music, Vienna, '89-'91; Pupil of Raphael Joseffy and Anton Dvorak, '91; Instructor National Conservatory of Music, New York, '91-'93; Colorado College, '95.

HENRY EVARTS GORDON, A. B. 922 North Weber St.

Professor of Rhetoric and Oratory.

A. B. (Amherst), '79; Principal Tillotson Academy, Trinidad, Colo., '80-'96; Colorado College, '96.

JAMES GORDON GULICK, A. B. 922 North Weber St.

Instructor in English and Romance Languages.

A. B. (Harvard), '98; Colorado College, '98.

FREDERIC R. HASTINGS, A. M. 13½ South Tejon St.

Instructor in Mechanical Drawing.

Worcester (Mass.) Polytechnic Institute, '83-'85; Ph. B. (Colorado College), '91; A. M. (*ibid.*), '92.

MARGUERITE M. LAMB, B. S. Montgomery Hall.

Assistant in Chemistry.

B. S. (Mount Holyoke), '97; Colorado College, '98.

ELLSWORTH GAGE LANCASTER, A. M., PH. D. 929 N. Nevada.

Assistant Professor of Philosophy and Pedagogy.

A. B. (Amherst), '85; A. M. (Amherst), '88; B. D. (Andover), '89; Ph. D. (Clark University), '97; Instructor in Elocution and Physical Culture, Williston Seminary, '85–'86; Instructor in French, German, Latin and English, Morgan Park, Ill., '87–'88; Principal and Teacher of Philosophy, Classics and Modern Languages, Eureka (Kas.) Academy, '90–'95; University Scholar in Psychology, Clark University, '95–'96; University Fellow in Psychology, Clark University, '96–'97; Colorado College, '97.

RUTH LOOMIS, A. B. Ticknor Hall.

Dean of Women.

A. B. (Vassar), '85; Instructor in English, Vassar, '86–'95; Colorado College, '96.

FRANK HERBERT LOUD, A. B. 1203 North Tejon St.

Professor of Mathematics and Astronomy.

A. B. (Amherst), '73; Walker Instructor in Mathematics, Amherst, '73–'76; Instructor in Geometry, Smith College, '79; Scholar in Mathematics, Clark University, '90–'91; Colorado College, '77.

HANNAH TAYLOR MUIR, M. D. 611 North Tejon St.

Instructor in Hygiene and Medical Adviser.

Woman's Medical School, Philadelphia, '88–'90; M. D. (University of Colorado), '93; Clinical Obstetrician, University of Colorado, '93–'95; Assistant County Physician, Arapahoe County, Colo., '93–'94; Post Graduate School of Medicine and Polyclinic, New York, '95; Allgemein Polyclinic, Vienna, '96; Philadelphia Polyclinic, '97; Colorado College, '95.

ATHERTON NOYES, A. B. 815 North Tejon St.

Assistant Professor of English and Greek, and Dean of the Faculty.

A. B. (Yale), '85; Colorado College, '92.

EDWARD S. PARSONS, A. M., B. D. 1328 North Nevada Ave.

Vice-President and Bemis Head Professor of English.

A. B. (Amherst), '83; A. M. (Amherst), '86; B. D. (Yale), '87; Colorado College, '92.

LOUIS JEANNERET SOUTTER. Everhart Building.

Director of the Department of Art and Design.

Graduate, University of Lausanne, '90; Student, Royal Conservatory of Music, Brussels, under Eugéne Ysaye, '92–'95; Student, Ecole des Beaux Arts and Colarossi Atelier, Paris, '95–'98; Colorado College, '98.

WILLIAM STRIEBY, A. M., E. M. 805 North Cascade Ave.

Professor of Chemistry and Metallurgy.

A. B. (University of New York), '75; E. M. (Columbia University School of Mines, '78; A. M. (University of New York), '79; Principal Santa Fé Academy, Santa Fé, N. M., '78–'80; Colorado College, '80.

FRANCIS WALKER, S. B., A. M., PH. D. 815 North Tejon St.

Professor of Political and Social Science.

S. B. (Massachusetts Institute of Technology), '92; A. M. (Columbia University), '93; Ph. D. (Columbia University), '95; University Fellow in Economics, Columbia University, '92–'94; with Massachusetts Board to Investigate the Unemployed, '94–'95; Colorado College, '95.

FRANCES SEDGEWICK WIGGIN. Ticknor Hall.

Librarian.

B. L. (University of Wisconsin), '82; Colorado College, '98.

FACULTY OF MUSIC.

RUBIN GOLDMARK, Director. 1117 Wood Ave.

CLARENCE WILBER BOWERS. 119 East Dale St.

Instructor in Piano-forte and Organ.

Graduate New England Conservatory of Music, Boston; Pupil of G. W. Chadwick and Ferruccio Busoni, '90-'92; Pupil of Alexandre Guilmant, Paris, '95-'96; Organist and Instructor of Music in Seminary and Academy, Andover, Mass., '91-'92; Professor of Instrumental Music and Harmony, Cornell College, Mt. Vernon, Iowa, '92-'95; Colorado College, '96.

CHARLES DOPF. 325 North Tejon St.

Instructor in Violin.

Member of Damrosch Symphony Orchestra, N. Y., '89-'96; Colorado College, '96.

OMA FIELDS. 808 North Weber St.

Instructor in Piano-forte.

New England Conservatory of Music (graduate), '89; Pupil of Leschetitzky, Vienna, '96; Colorado College, '94.

RICHARD FRANZ SCHUBERT. 314 W. Cucharras St.

Instructor in Violoncello.

Pupil of Grutzmacker, Dresden, '74-'77; Member of Thomas' Orchestra, New York, '81-'82; Colorado College, '97.

FANNY AIKEN TUCKER. 817 North Weber St.

Instructor in Voice Culture.

Hershey School of Musical Art, '84-'85; Special Student in Oratorio and Church Music with Mrs. Sara Hershey Eddy, Chicago, '86-'90; Colorado College, '94.

LECTURERS BEFORE THE SENIOR AND JUNIOR CLASSES.

J. T. ESKRIDGE, M. D. Denver.

States of Disturbed Consciousness.

LEONARD FREEMAN, M. D. Denver.

Anatomy of the Brain: Microscopic Analysis of Nervous Tissue.

THE REV. JAMES B. GREGG, D. D. 731 North Cascade Ave.

The Ethical Teaching of the Old Testament.

STANDING COMMITTEES OF THE FACULTY.

ACCREDITED SCHOOLS.

Prof. Coy, *Chairman;* Prof. Gile, Mr. Brookover.

ART.

Mr. Soutter, *Chairman;* Prof. Noyes, Miss Loomis.

ATHLETICS.

Prof. Gordon, *Chairman;* Prof. Ahlers, Prof. Walker.

COURSES OF STUDY OF INDIVIDUAL STUDENTS.

College—Prof. Parsons, *Chairman;* Prof. Gile, Prof. Noyes.
Academy—Prof. Parsons, *Chairman;* Prof. Gile, Prof. Coy.

DISCIPLINE.

The President, *Chairman;* Profs. Parsons, Cajori, Coy, Gile.

FACULTY CLUB MEETINGS.

The President, *Chairman;* Mr. Brehaut, Mrs. Eaton.

MUSIC.

Mr. Goldmark, *Chairman;* Miss Loomis, Prof. Parsons.

POST-GRADUATE DEGREES.

Prof. Lancaster, *Chairman;* Prof. Walker, Dr. Bagg.

SCHEDULE AND PUBLICATIONS.

Prof. Cajori, *Chairman;* Mr. Doudna, Dr. Barnett.

SCHOLARSHIPS.

The President, *Chairman;* Prof. Parsons, Prof. Gile.

STUDENTS' SELF-HELP.

Prof. Lancaster, *Chairman;* Prof. Strieby, Mr. Doudna.

CLASS OFFICERS.

College.	Academy.
Seniors—The President.	IV—Prof. M. C. Gile.
Juniors—Prof. E. G. Lancaster.	III—Prof. William Strieby.
Sophomores—Prof. L. A. E. Ahlers.	II—Prof. H. E. Gordon.
Freshmen—Prof. E. S. Parsons.	I—Mr. P. E. Doudna.
Special Students—Prof. Florian Cajori.	*Special Students*—Prof. F. Walker.

CALENDAR.

1899.

Mar. 29	Wednesday	Easter Recess begins at 1 P. M.
April 6	Thursday	Easter Recess ends at 8:30 A. M.
May 30	Tuesday	Memorial Day; a holiday.
June 5	Monday	Second Semi-annual Examinations begin. First Entrance Examinations begin.
June 11	Sunday	Baccalaureate Sermon.
June 12	Monday	College Oratorical Contest.
June 13	Tuesday	Cutler Academy Graduation Exercises.
June 14	Wednesday	Commencement Exercises.
Sept. 12	Tuesday	Second Entrance Examinations begin.
Sept. 13	Wednesday	First Half-year begins at 8:30 A. M.
Nov. 29	Wednesday	Thanksgiving Recess begins at 1 P. M.
Dec. 4	Monday	Thanksgiving Recess ends at 8:30 A. M.
Dec. 20	Wednesday	Christmas Recess begins at 1 P. M.

1900.

Jan. 3	Wednesday	Christmas Recess ends at 8:30 A. M.
Jan. 25	Thursday	Day of Prayer for Colleges.
Jan. 29	Monday	First Semi-annual Examinations begin.
Feb. 5	Monday	Second Half-Year begins at 8:30 A. M.
Feb. 22	Thursday	Washington's Birthday; a holiday.
April 11	Wednesday	Easter Recess begins at 1 P. M.
April 19	Thursday	Easter Recess ends at 8:30 A. M.
May 30	Wednesday	Memorial Day; a holiday.
June 4	Monday	Second Semi-annual Examinations begin. First Entrance Examinations begin.
June 10	Sunday	Baccalaureate Sermon.
June 11	Monday	College Oratorical Contest.
June 12	Tuesday	Cutler Academy Graduation Exercises.
June 13	Wednesday	Commencement Exercises.
Sept. 11	Tuesday	Second Entrance Examinations begin.

REQUIREMENTS FOR ADMISSION

TO THE

FRESHMAN CLASS.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF ARTS.

Admission by Examination.

1. IN GREEK.—(*a.*) A thorough knowledge of inflection, with the use of the accents, and the ordinary grammatical constructions. (*b.*) Four books of the Anabasis. (*c.*) Three books of the Iliad, with prosody and dialectic forms. (*d.*) Translation at sight of average passages from Xenophon and Homer. (*e.*) The translation into Greek of a passage of connected discourse of moderate difficulty. (Collar and Daniell's Greek Prose Composition, or the first forty-four exercises in Allinson's, will indicate the nature of the work required.) (*f.*) Such a brief general view of Greek history as is contained in the revised edition of Pennell's or Myers' History of Greece.

2. IN LATIN.—(*a.*) Grammar. Special stress will be laid upon an accurate and ready knowledge of grammatical forms. (*b.*) Cæsar: Gallic War, Bks. I-IV, or an equivalent. (*c.*) Cicero: Seven orations. (*d.*) Vergil: Aeneid, Bks. I-VI. (*e.*) Translation at sight of easy passages of prose Latin. (*f.*) Prose Composition (Daniell or Moulton and Collar). (*g.*) An outline knowledge of the history of the Roman Republic.

3. IN ENGLISH.—The candidate will be required to write a short essay, which will be judged from the standpoint of thought, spelling, punctuation, grammar, and division into paragraphs, on one of several topics which will be announced at the time of the examination. In 1899 the topics will be

chosen from the following works: Dryden's Palamon and Arcite; Pope's Iliad, Books I, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; De Quincey's Flight of a Tartar Tribe; Cooper's Last of the Mohicans; Lowell's Vision of Sir Launfal; Hawthorne's House of the Seven Gables.

All these books are to be read carefully and intelligently. Minute knowledge of them will not be required, but the candidate will be expected to have clearly in mind their important parts. For the examinations in 1900 and 1901 the following books are prescribed:

For 1900.—Dryden's Palamon and Arcite; Pope's Iliad, Books I, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Scott's Ivanhoe; De Quincey's Flight of a Tartar Tribe; Cooper's Last of the Mohicans; Tennyson's Princess; Lowell's Vision of Sir Launfal.

For 1901.—Shakespeare's Merchant of Venice; Pope's Iliad, Books V, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; Scott's Ivanhoe; Cooper's Last of the Mohicans; Tennyson's Princess; Lowell's Vision of Sir Launfal; George Eliot's Silas Marner.

In addition to the above, the candidate will be required to pass an examination upon the subject matter, form and other literary qualities of the following books: Shakespeare's Macbeth; Milton's Paradise Lost, Books I and II: Burke's Speech on Conciliation with America; Carlyle's Essay on Burns.

For the examinations in 1900 and 1901 the following are prescribed:

For 1900.—Shakespeare's Macbeth; Milton's Paradise Lost, Books I and II; Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and Addison.

For 1901.—Shakespeare's Macbeth; Milton's Lycidas, Comus, L'Allegro and Il Penseroso; Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and Addison.

A mastery of the essentials both of English Grammar and of elementary rhetoric will also be required of all candidates.

4. In German or French.—A good elementary knowledge of the language, such as is sufficient for reading easy prose at sight. See outline of courses, "German A" and "French A," on pp. 38 and 39 respectively.

5. In Mathematics.—(*a.*) Algebra, through simultaneous quadratic equations. (*b.*) Elementary Plane Geometry, or as much as is contained in the first five books of Beman and Smith's, or Phillips and Fisher's, or Wentworth's Geometry.

While Solid and Spherical Geometry are not required, the student who adds these to his preparatory mathematical course will gain an advantage, particularly if he proposes to take the course in Surveying in the Freshman year. See p. 41.

Candidates from schools where Greek is not taught, who have completed the preparation for the Bachelor of Philosophy division of the Freshman class, but prefer to follow the course for the degree of Bachelor of Arts, will be allowed to do so by taking Greek through the whole four years.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed a preparatory course similar in character and equivalent in extent to the above requirements, will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Arts.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF PHILOSOPHY.

Admission by Examination.

In Latin, English, German (or French), and Mathematics, the requirements and recommendations are the same as for the course leading to the degree of Bachelor of Arts. Candidates for admission to this course need not offer Greek, in place of which they will be examined in the following subjects:

1. IN PHYSICS.—Gage's Introduction to Physical Science, Carhart and Chute's Elements of Physics, or an equivalent.

2. IN CHEMISTRY.—Williams' Elements of Chemistry, or an equivalent.

3. IN BOTANY.—Gray's Lessons (revised edition), or Bergen's Elements of Botany.

4. IN PHYSIOLOGY.—Martin's Briefer Course, or an equivalent.

5. IN AMERICAN OR ENGLISH HISTORY.—An outline knowledge of the leading facts.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed a preparatory course similar in character and equivalent in extent to the above requirements, will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Philosophy.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

Admission by Examination.

In Physics, Chemistry, Botany, Physiology, American or English History, and in English, the requirements are the same as for the course leading to the degree of Bachelor of Philosophy. The following are the additional requirements:

1. *In Languages.*—Latin, German or French, amounting collectively to four full years of work, two of which must be in Latin or German.

2. *In Mathematics.*—(*a.*) Algebra, through simultaneous quadratic equations; (*b.*) Plane Geometry, as much as is contained in the first five books of Beman and Smith's, or Phillips and Fisher's, or Wentworth's Geometry; (*c.*) either Solid and Spherical Geometry, or Plane Trigonometry.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed a preparatory course, similar in character and equivalent in extent to the above requirements, will be admitted without condition into the Freshman class in the course leading to the degree of Bachelor of Science.

Accredited Schools.

The following schools are on the accredited list; certificates of the satisfactory completion, in any of them, of any branch in the course of study required for admission to the College will be accepted in lieu of examination:

Aspen High School.
Canon City High School.
Central City High School.
Cheyenne (Wyo.) High School.
College of the Southwest.
Colorado Springs High School.
Denver: High School, Dist. No. 1.
  " High School, Dist. No. 2.
  " North Side High School.
Durango High School.
Fort Collins High School.
Georgetown High School.
Golden High School.
Grand Junction High School.
Greeley High School.
Jarvis Hall, Montclair.
Leadville High School.
Longmont High School.
Pueblo: High School, Dist. No. 1.
  " High School, Dist. No. 2.
Salida Academy.
Salida High School.
Trinidad High School.
Miss Wolcott's School, Denver.
Wolfe Hall, Denver.

ENTRANCE EXAMINATIONS.

Examinations for admission to the College will take place on Monday and Tuesday, June 5 and 6, 1899, and again on Tuesday, September 12, 1899. They are held in Palmer Hall, beginning at 9 A. M. No examination will be held between these dates, but delayed examinations may be held after the beginning of the fall term for the accommodation of students who, for good reason, have been unable to attend at the regular time.

For the accommodation of students residing at a distance, examinations will be held under the direction of authorized persons, at various points in and near the State, as need may require. The cities of Cheyenne, Wyo., Denver, Pueblo, Trinidad, Leadville, Montrose and Grand Junction, Colo., and Las Vegas, N. M., are points where such arrangements can readily be made, and others may be added, if necessary. But students who desire examinations at these or other points must notify the President at least three weeks in advance of the time of the regular examination.

ADMISSION TO COURSES.

Students will be received into advanced classes on examination in the studies of the preceding year. The Faculty may, at their discretion, receive certificates from other colleges as evidence that the student has satisfactorily pursued these or equivalent studies.

The attention of students who propose to enter the Junior or Senior class is called to the notice at the end of the Elective list (page 31), relative to early application for Electives. Students are expected to register and begin attending their courses at the first exercise of each half-year.

COURSES OF STUDY.

Three courses of study are offered in the College, each subject to considerable variation at the will of the student. The course leading to the degree of Bachelor of Arts corresponds to that which the best Eastern colleges require for the same degree. In the course leading to the degree of Bachelor of Philosophy there is no Greek, and less Latin than in the course for Bachelor of Arts; but the required work of the first two years includes more of the Sciences and Modern Languages. The course leading to the degree of Bachelor of Science is so arranged that special attention may be devoted to any one of five principal lines of study, which give prominence to Mathematics, Physics, Chemistry, Biology, and Geology, respectively. A detailed description of these will be found below.

BACHELOR OF ARTS.

FRESHMAN YEAR.

Mathematics.—4 hours through the year. First half-year—Algebra; Trigonometry begun. Second half-year—Trigonometry, 2 hours; Solid and Spherical Geometry (alternative with Surveying), 2 hours.

German or French.—4 hours through the year; a second year (Course B, see pp. 38, 39) of whichever of these languages the student offered as part of his preparation for college.

English.—2 hours through the year; History of the English Language, Rhetoric and Composition (Courses 1 and 2, page 36.)

Greek.—3 hours through the year. First half-year—Selections from the Odyssey or Iliad; reading at sight. Second half-year—Selections from Lysias; History of Greek Oratory; Selections from Herodotus; The Apology and Crito; reading at sight.

Latin.—4 hours through the year. First half-year—Livy, Bk. xxii; Cicero, De Senectute and De Amicitia; Latin composition; reading at sight. Second half-year—Pliny, Selected Letters; Horace, Odes; Latin composition; reading at sight.

SOPHOMORE YEAR.

Latin.—3 hours through the year. First half-year -Horace, Epistles I; Tacitus, Germania and Agricola; Latin composition; reading at sight. Second half-year—Selected plays of Plautus and Terence; Latin composition; reading at sight.

English.—First half-year, 2 hours. English composition (Course 3, page 36). Second half-year, 3 hours—American Literature (Course 4, page 37).

Physics.—4 hours through the year (Course 2, page 42). Alternative with Course 1 (page 42) or with A. B. Chemistry.

Oratory.—1 hour through the year.

Greek.—First half-year, 4 hours—Selected plays of Æschylus and Sophocles; History of Greek Tragedy. Second half-year, 4 hours—Euripides, three plays. Alternative with Analytical Geometry, either for the first half-year or for the whole year.

Mathematics.—First half-year, 4 hours—Analytical Geometry, including the elementary properties of Conics. Second half-year, 3 hours—Analytical Geometry continued. Alternative in each half-year with Greek, but the second half year of Analytical Geometry cannot be taken without the first. A student may take both Greek and Mathematics, omitting French, German and Zoology, and when this is done in the first half-year he will receive credit on his Junior electives for one hour for half a year.

French or German.—A third year in continuation of the student's previous work in one of these languages, 3 hours, or, at the student's option, a beginning course (German A or French A) of the language not studied in the Freshman year, French A counting 3 hours. In the second half-year alternative with Zoology.

Zoology.—Second half-year, 3 hours. Alternative with French and German.

JUNIOR YEAR.

Psychology and Logic.—4 hours through the year, including one seminary hour. Neurology, 8 weeks; Animal Intelligence, 6 weeks; Psychophysics, 4 weeks; General Psychology and Logic, through the remainder of the year.

Chemistry.—8 hours through the year; laboratory work and recitations. Counts as 4 hours (p. 43). Alternative with Physics, Course 1 or Course 2 (p. 42).

Political Economy.—First half-year, 4 hours.

Elective Courses.—Amounting to at least 5 hours in the first half-year and 9 in the second, chosen by the student from the list given on pages 28-31.

History.—Among the electives of Junior or Senior year, the student is required to choose some course or courses in History, amounting to at least 4 hours for one half-year.

SENIOR YEAR.

History of Philosophy and Ethics.—4 hours through the year, including 1 seminary hour. First half-year—History of Philosophy; outside reading, lectures and conferences. Second half-year—Janet's Theory of Morals; outside reading, lectures and conferences. In the seminary of each course, theses and discussions.

Elective Courses —Amounting to at least 13 hours for the first half-year and 12 hours for the second half-year, chosen by the student from the list on pages 28-31.

BACHELOR OF PHILOSOPHY.

FRESHMAN YEAR.

Mathematics, *German or French*, *English.*—The courses are the same as those for the degree of Bachelor of Arts. Students credited with Solid Geometry or Plane Trigonometry may elect Elementary Dynamics, which is the introductory portion of Course 1 in Physics.

Latin.—As in the Bachelor of Arts course. Alternative with the French or German named below.

French or German.—4 hours through the year; Course A (see pp. 38, 39) of whichever of these languages was not offered as part of the preparation for college. Alternative with Latin.

Biology.—6 hours through the year; laboratory practice, with additional exercises (readings, etc.), at the discretion of the instructor. (Counts as 3 hours.)

SOPHOMORE YEAR.

French or German.—4 hours through the year. The student takes whichever of these two languages was not included in his preparation for college; Course A (see pp. 38, 39), if he did not have it in Freshman year, otherwise Course B.

Chemistry.—9 hours through the year; laboratory work and recitations. Roscoe's Elements of Chemistry. (Counts as 4 hours.)

Physics.—4 hours through the year; Course 1 or Course 2 (p. 42). Students entering Course 1 must have elected Elementary Dynamics in second half of Freshman year.

Oratory.—2 hours, second half-year.

Mathematics.—The same courses in Analytical Geometry are offered as to the A. B. student, occupying 4 hours in the first half-year and 3 hours in the second. But, as an alternative, *Astronomy* may be chosen in the first and *English* in the second half-year.

Astronomy.—First half-year, 4 hours. (Course 13, p. 41.) Alternative with Analytical Geometry.

English.—First half-year, 2 hours. English Composition (Course 3, p. 36). Second half-year, 3 hours—American Literature (Course 4, p. 37). This latter course is alternative with Analytical Geometry to students who have taken the Mathematics of the first half-year, but those who elect Analytical Geometry in the second half-year will be required to include American Literature among the electives of Junior or Senior year.

JUNIOR YEAR.

Psychology and Logic and Political Economy.—The requirements in these branches are the same as in the A. B. course.

Geology.—4 hours through the year. Scott's Introduction to Geology; Le Conte's Elements of Geology; field excursions and geological mapping.

Electives.—Amounting to 5 hours in the first half-year and 9 in the second.

History.—As in A. B. course of Junior year.

SENIOR YEAR.

The requirements are the same as those in the Bachelor of Arts course above.

BACHELOR OF SCIENCE.

The studies which are required of all candidates for the degree of Bachelor of Science are as follows:

FRESHMAN YEAR.

English.—As in the Freshman year of the A. B. course. 2 hours.

Biology.—As in the Freshman year of the Ph. B. course (Counts as 3 hours).

French or German.—4 hours through the year.

Chemistry.—As in the Sophomore year of the Ph. B. course. 9 hours of recitation, lectures and laboratory work. (Counts as 4 hours).

Mathematics.—First half-year: Advanced Algebra, Trigonometry begun, 4 hours. Second half-year: Solid and Spherical Geometry,* 2 hours; Trigonometry,* 2 hours.

Physics.—Second half-year, 2 hours. Elementary Dynamics (p. 42).

SOPHOMORE YEAR.

English.—As in the Sophomore year of the A. B. course. First half-year, 2 hours; second half-year, 3 hours.

Physics.—Course 1, p. 42. 4 hours.

German.—First half-year, 4 hours; second half-year, 3 hours.

Oratory—1 hour through the year.

Additional Requirement.—See below.

JUNIOR YEAR.

Psychology and Logic.—As in the Junior year of the A. B. course. 4 hours.

Geology.—As in the Junior year of the Ph. B. course. 4 hours.

SENIOR YEAR.

History of Philosophy and Ethics.—As in the Senior year of the A. B. and Ph. B. courses. 4 hours.

History.—In Junior or Senior year sufficient history must be included among the studies elected to amount to 4 hours for one half-year.

In the Freshman year the required studies tabulated above will occupy the entire time of the student. In the three succeeding years other required studies, differing according to the nature of the course selected, must be added to those above named; and still other studies are offered in each department as elective. The student will choose so many of the latter as will make, together with the studies required of all S. B. candidates and those required for the course he selects, sixteen or seventeen hours of recitation per week. The student's choice of electives is not limited to those offered in the department to which his principal studies belong; but he may take in place of them, so far as not prevented by conflict of hours, any branch which is a required study for any of the college courses, or any elective study in which a class may have been formed by students taking other courses than his own, whether leading to the degree of S. B. or to other degrees; provided, however, that the general scientific character of his course be maintained to the satisfaction of the Faculty.

---

*Omitted by those who offered it for admission to college. Any student planning to elect the courses in Biology, Chemistry or Geology may take Surveying instead of Solid and Spherical Geometry.

ADDITIONAL REQUIREMENTS AND ELECTIVES.

COURSE IN PURE MATHEMATICS AND ASTRONOMY.

Sophomore Year.—*Analytic Geometry*, 4 hours, first half-year; *Calculus*, 2 hours, first half-year, and 5 hours, second half-year; *Mechanical Drawing*, 5 hours (counts as 2), second half-year.

Junior and Senior Years.—The student takes courses in Mathematics and Astronomy, amounting collectively to 4 hours through the two years. See p. 40.

COURSE IN PHYSICS.

Sophomore Year.—Same as for course in Pure Mathematics and Astronomy.

Junior and Senior Years.—The student takes courses in Physics, amounting collectively to 4 hours, through the two years. See p. 42.

COURSE IN CHEMISTRY.

Sophomore Year.—*Analytics* or *Astronomy*, 4 hours, first half-year; *Zoology*, 3 hours, second half-year; *Qualitative Analysis*, 2 hours, first half-year, 5 hours, second half-year.

Junior and Senior Years.—The student takes courses in Chemistry, amounting to 4 hours through the two years. See p. 43.

COURSE IN BIOLOGY.

Sophomore Year.—*Analytics* or *Astronomy*, 4 hours, first half-year; *Zoology*, 3 hours, second half-year. *Cryptogamic Botany*, 2 hours, first half-year, 4 hours, second half-year.

Junior and Senior Years.—The student takes courses in Biology amounting to 4 hours, through the two years. (See p. 46).

COURSE IN GEOLOGY.

Sophomore Year.—*Analytics* or *Astronomy*, 4 hours, first half-year; *Zoology*, 3 hours, second half-year. *Geology, Mineralogy*, etc., 2 hours, first half-year; 4 hours, second half-year.

Junior and Senior Years.—The student takes courses in Geology, amounting collectively to 4 hours, through the two years. (See p. 47).

Elective Studies for Juniors and Seniors in the A. B., Ph. B., and S. B. Courses.

Unless otherwise stated, each Elective Study continues through the year, and is open to both Seniors and Juniors. Not all the Electives will be given in any one year.

Philosophy.—(Page 31.)

Hours per week.

2 *Modern German Philosophy;* first half-year.
2 *The Philosophic Movement in England;* second half-year.
2 *Advanced Logic;* second half-year.
2 *Lotze;* second half-year.
1 *Seminary in Social Ethics;* second half-year.
1 *Seminary in Greek Philosophy;* one-half year.

Pedagogy.—(Page 34.)

2 *History and Philosophy of Education;* first half-year.
2 *School Hygiene and Child Study;* second half-year.
1 *Original Observations.*
1 *Pedagogical Seminary.*

Mathematics and Astronomy.—(Page 40).

2 *Calculus, Differential;* first half-year.
5 *Calculus, Differential and Integral;* second half-year. (The course must be pursued one full year.)
4 *Modern Synthetic Geometry;* one half-year.
2 *Elementary Surveying;* second half-year.
4 *Analytical Geometry* (elementary); first half-year.
3 *Analytical Geometry* (more advanced); second half-year.
4 *Differential Equations;* one half-year.
2 *The History and Logic of Mathematics;* one half-year.
4 *Elementary Theory of Functions;* one half-year.
4 *Astronomy, Elementary* (course 12); first half-year.
4 *Astronomy*, Observatory work with problems in Mathematical Astronomy (Course 13); second half-year.
2 *Mathematical Astronomy.*
2 *Meteorology;* second half-year.

Chemistry.—(Page 43).

4 *General and Applied Chemistry.* Sophomore (Ph. B.) Chemistry prerequisite.
2 *Chemical Analysis, Qualitative;* first half-year.
5 *Chemical Analysis, Qualitative;* second half-year.
4 *Chemical Analysis, Quantitative.* Qualitative Analysis prerequisite.
3 *Theoretical Chemistry;* Sophomore (Ph. B.) Chemistry prerequisite.

PHYSICS.—(Page 42).

Hours per week.

5 *Electricity and Magnetism* and *Theory of Heat.* (Course 3).
3 *Physical Optics.* (Course 4).
2 *Dynamics.* (Course 5).
2 *Alternating Currents of Electricity;* second half-year. (Course 6).

BIOLOGY.—(Page 46).

3 *Zoology;* second half-year. (Elective to A. B. and Ph. B. students).
3 *Comparative Anatomy;* first half-year. Zoology prerequisite.
3 *Physiology;* first half-year.

GEOLOGY.—(Page 47.)

4 *Structural Geology;* first half-year. (A. B. elective.)
4 *Historical Geology.* (A. B. elective).
3 *Paleontology;* second half-year. *Zoology* prerequisite.
3 *Physiographic Geology;* first half-year.
3 *Geological Evolution;* second half-year.

ECONOMICS.—(Page 49.)

3 *Public Finance;* second half-year.
3 *Money and Banking;* first half-year.
2 *Railroads;* second half-year.
2 *Socialism;* second half-year.

POLITICS.—(Page 50).

3 *Historical Politics;* first half-year.
3 *Comparative Politics;* second half-year.
1 *International Law;* first half-year.

HISTORY.—(Page 51).

4 *English History;* first half-year.
4 *United States History;* second half-year.
2 *History of the Middle Ages;* first half-year.
2 *History of the Renaissance;* second half-year.
2 *The Ancient Régime and the Revolution;* first half-year.
2 *The Napoleonic Era and Modern Times;* second half-year.

ENGLISH.—(Page 36.)

3 *American Literature;* second half-year.
3 *Early English Literature;* first half-year.
3 *Elizabethan Drama;* second half-year.
2 *Shakespeare.*
3 *English Poetry, Dryden to Wordsworth;* first half-year. Open to Seniors.

Hours per week.

3 *English Prose, Bunyan to De Quincey;* second half-year. Open to Seniors.
2 *Victorian Literature;* first half-year. Open to Seniors.
3 *Anglo-Saxon:* first half-year.
3 *Seminary in Literary Criticism.*

GREEK.—(Page 34.)

2 *Greek History;* one half-year.
2 *Greek Philosophy;* one half-year.
2 *Greek Oratory;* one half-year.
2 *Greek Epic and Lyric Poetry;* one half-year.

LATIN.—(Page 35.)

2 *Roman Dramatic Poetry;* one half-year.
2 *Elegiac Poetry;* one half-year.
2 *Roman Satire;* one half-year.
2 *Roman History.*
2 *Roman Life from Original Sources.*
2 *Vergil;* one half-year.
1 *Advanced Latin Composition.*

GERMAN.—(Page 38.)

2 *Schiller and Goethe* (Course C); first half-year.
2 *Lessing and Goethe* (Course D); second half-year.
1 *History of German Literature* (Course E).
2 *The Nibelungenlied, etc.* (Course F).
3 *Middle High German* (Course G); one half-year.
2 *Gothic* (Course H).
2 *Faust* (Course I).
2 *Poetry of Goethe and Schiller* (Course K).

FRENCH.—(Page 39.)

2 *Racine and Corneille* (Course C); first half-year.
2 *Racine, Corneille and Victor Hugo* (Course D); second half-year.
2 *History of French Literature* (Course E).
2 *Rousseau* (Course F).

SPANISH.—(Page 40.)

3 *Elementary Course* (Course A).
2 *Castelar and Cervantes* (Course B).

PUBLIC SPEAKING.—(Page 52.)

1 *Oratory.*
1 *Extemporaneous Speaking;* first half-year.
1 *Forensics.*
1 *Vocal Interpretation: Shakespeare.*

BIBLE STUDY.—(Page 52.)

THEORY OF MUSIC.—(Page 73.)
Hours per week.
2 *Harmony.*
2 *Counterpoint.*

HISTORY OF ART. (Page 34).
1 *Greek Architecture and Sculpture;* second half-year.

A student for any degree is usually permitted, further, to take as an elective any study required for another degree that does not appear in the course required for his own degree, and that does not introduce a conflict of hours. But, for this purpose, French A counts as three hours only, German A as four hours.

Seniors and Juniors should mail their choice of electives to the Dean of the Faculty, Atherton Noyes, Colorado Springs, in time to be received not later than September 9, 1899. The hours for electives (other than Senior and Junior English, which are included in the schedule on pp. 56–57) will then be assigned, and electives for which no application has been received may be withdrawn. When new electives are chosen at mid-year, the Dean should be notified at least three days before the first recitation of the course.

DEPARTMENTS OF INSTRUCTION.

A more detailed account of the different branches of study included in the College curriculum will be found below:

PHILOSOPHY.

This course extends over the whole of the Junior and Senior years, and gives the student a knowledge of the development of thought in the several departments of philosophy. The various Seminary courses afford training in the study and discussion of important psychological, sociological and ethical questions.

1. NEUROLOGY.—Lectures on the brain and nervous system, with careful dissections, by the class, of brains of animals, and study of human brains. 8 weeks.—DR. LANCASTER.

2. ANIMAL INTELLIGENCE.—Lectures, reading of Romanes, Morgan, Binet and others. A study of comparative neurology of animals, with a thesis by each member of the class on the nervous

development of some species of animal, compared with the habits and environment of the same animal. 6 weeks.—DR. LANCASTER.

3. EXPERIMENTAL PSYCHOLOGY.—Lectures, recitations and experiments, based on Sanford's *Handbooks*. 4 weeks.—DR. LANCASTER.

4. GENERAL PSYCHOLOGY AND LOGIC.—James' *Principles of Psychology, Briefer Course*, recitations, lectures, parallel readings and observations. Jevons' *Elementary Lessons in Logic*, studied under Psychology in connection with Reason. Second half-year.—DR. LANCASTER.

   Lectures:

   (*a.*) Introductory Series.—PRESIDENT SLOCUM.

   (*b.*) Cerebral Localization and the Relation of Thought to Brain Activity. Four lectures.—DR. J. T. ESKRIDGE.

5. PSYCHOLOGICAL LABORATORY.—Opportunity will be afforded for the conducting of experiments in special lines.

6. PSYCHOLOGICAL SEMINARY.—The leading subjects in Modern Psychology. Theses and Discussions. Study of the following subjects: The Relations of Mind and Body; Double Consciousness; Animal Psychology; The Psychology of Defectives; Mental Evolution in Man; Unconscious Cerebration; Diseases of the Memory; Diseases of the Will; Dreams; The Psychology of Music; Hallucinations; Power of Suggestion; Aphasias; Muscle Memory; Psychology of Fear; Hypnotism; Sanity and Insanity; Genius. Each student is also required to select some one subject for independent study and investigation during the year. One hour.—DR. LANCASTER.

7. HISTORY OF PHILOSOPHY.—Lectures, recitations and conferences. Four hours.—PRESIDENT SLOCUM.

   Lectures:

   (*a.*) Study in Comparative Religions.—PRESIDENT SLOCUM.

   (*b.*) Greek Philosophy. Twenty lectures.—PRES. SLOCUM.

   (*c.*) Modern Philosophy. Fifteen lectures.—PRES. SLOCUM. (1) The Rise and Fall of Scholasticism; (2) The Beginnings of Modern Philosophy—Bacon and Descartes; (3) Spinoza; (4) Locke; (5) The Sceptical Movement in France; (6) Leibnitz; (7) Berkeley; (8) Hume; (9) Kant, the Critique of Pure Reason; (11) Kant, the Transcendental Element in His Philosophy; (12) Hegel; (13) Schopenhauer; (14) Lotze; (15) Spencer—The Philosophy of Evolution.

These lectures will be followed by a series of conferences, conducted by President Slocum.

8. METAPHYSICAL SEMINARY.—One hour.—PRESIDENT SLOCUM.

Presentation of papers and discussion of the following subjects:

(*a.*) The Great Religions of the World.

(*b.*) The Psychological Basis of Religious Faith.

(*c.*) The Psychological Basis of Æsthetics.

(*d.*) Philosophical Thought in England during the Nineteenth Century.

(*e.*) Evolution: its History, Development and Results.

9. ETHICS.—Janet's *Theory of Morals.* Lectures, theses and discussions. Four hours.—PRESIDENT SLOCUM.

Lectures:

(*a.*) The Fundamental Principles of Ethics. Twelve lectures.—PRESIDENT SLOCUM.

(*b.*) The Ethical Teaching of the Old Testament. Three lectures.—REV. JAMES B. GREGG, D. D.

(*c.*) Christian Ethics. Three lectures.

10. ETHICAL SEMINARY.—One hour.—PRESIDENT SLOCUM.

Presentation of papers and discussions upon the following subjects:

(*a.*) Modern Social and Sociological Problems.

(*b.*) The Ethical View of Citizenship.

(*c.*) A Study of Educational Theories from an Ethical Standpoint.

11. ELECTIVE COURSES:

(*a.*) Modern German Philosophy. First half of Senior year. Two hours.—PRESIDENT SLOCUM.

(*b.*) The Philosophical Movement in England. Second half of Senior year. Two hours.—PRESIDENT SLOCUM.

(*c.*) Advanced Logic. Second half-year. Two hours.—PRESIDENT SLOCUM.

(*d.*) Lotze. Second half-year. Two hours.—PRESIDENT SLOCUM.

(*e.*) Seminary in Social Ethics.—The Labor Question, Temperance, Pauperism and other social problems considered from an ethical standpoint. One hour, second half-year.

(*f.*) Seminary in Greek Philosophy. One hour, one half-year.

PEDAGOGY.

1. *History and Philosophy of Education.*—First half-year. 2 hours, elective. Special attention to the recent educational developments in Europe and America. Study of educational reformers, school systems and curricula. Lectures, reading and conferences.—Dr. Lancaster.
2. *School Hygiene and Child Study.*—Second half-year. 2 hours, elective. Hygiene of the senses, fatigue, child and adolescent psychology, problems of the school-room and of practical teaching. Lectures, reading and discussion.—Dr. Lancaster.
3. *Original Observations in Psychological and Pedagogical Fields of Study.* 1 hour through the year.—Dr. Lancaster.
4. *Pedagogical Seminary.*—1 hour through the year. Reports and discussions of research work. Dr. Lancaster.

Courses 1, 2 and 3 may be taken by correspondence.

GREEK.

The studies in this department are prescribed for all candidates for the degree of Bachelor of Arts in the Freshman year, and are elective for the remainder of the College course.

The course is so arranged as to give the student an introduction to the several great departments of Greek Literature, and each author is studied from the literary as well as from the linguistic side. Particular care is taken to have the student acquire facility in reading Greek, and great stress is laid, throughout the course, on reading at sight.

FRESHMAN YEAR.

Homer.—Selections from the *Odyssey* and *Iliad* in the original, and all the poems in translation; three hours, first half-year.

Lysias.—Selections; History of Greek Oratory. *Plato*, *Apology* and *Crito*. *Herodotus*, Selections; 3 hours, second half-year.

SOPHOMORE YEAR.

1. *Æschylus and Sophocles.*—One play from each author in Greek, and all the plays in English. 4 hours, first half-year.

2. *Euripides.*—Two plays in Greek, and the most important remaining plays in English. 4 hours, second half-year.

Candidates for the A. B. degree may substitute Analytical Geometry, either for both these courses or for that of the first half-year.

ELECTIVE.

1. **Greek History.**—(*a.*) *Herodotus;* careful study of the period of the Persian Wars. Readings from the dramatists for further illustration of the life of the period; or (*b.*) *Thucydides*, the Sicilian Expedition. Parallel readings in Curtius, Grote and other modern historians. Selections from Plutarch's Lives. 2 hours, first half-year. Or—

2. **Greek Philosophy.**—*Plato*, Phaedo. Selections from other dialogues, and from the works of *Xenophon*. Zeller's Socrates and the Socratic Schools. 2 hours, first half-year.

3. **Greek Oratory.**—*Lysias* and *Demosthenes*, with selections from the other Attic Orators from Antiphon to Lycurgus. 2 hours, second half-year. Or—

4. **Greek Epic and Lyric Poetry.**—*Homer*, *Hesiod* and *Pindar*. 2 hours, second half-year.

5. **Greek Architecture and Sculpture.**—Tarbell's History of Greek Art, with supplementary readings. 1 hour, second half-year.

LATIN.

The study of Latin extends throughout the four years of the College course. It is obligatory in the Freshman and Sophomore years upon candidates proceeding to the degree of Bachelor of Arts, while students in the Bachelor of Philosophy course may choose it as an alternative to French or German in the Freshman year. In the Junior and Senior years a choice of Electives is offered.

The aim of the department is to develop the power of reading Latin with some facility, to secure a thorough knowledge of the mechanism of the language, to stimulate the appreciation of Latin literature, and to give a general acquaintance with the history, antiquities and character of the Roman people.

Much stress is laid upon sight translation. Instruction is given mainly by recitations; but these are supplemented by occasional lectures.

FRESHMAN YEAR.

First Half.—*Livy*, Bk. XXII; *Cicero*, De Senectute, De Amicitia.

Second Half.—*Pliny*, Selected Letters; *Horace*, Odes.

SOPHOMORE YEAR.

First Half.—*Horace*, Epistles I; *Tacitus*, Germania and Agricola.

Second Half.—Selected plays of *Plautus* and *Terence*.

1. ROMAN DRAMATIC POETRY.—History and characteristics of the Roman Drama. Fragments of *Nuevius*, *Ennius*, *Pacuvius*, *Attius*, *Caecilius Statius*, *Titinius*, *Afranius*, *Laberius*, *Publilius Syrus*, etc. Selected plays of *Plautus* and *Terence.* One half-year, 2 hours.

2. ROMAN ELEGIAC POETRY.—*Catullus*, *Tibullus*, *Propertius*, and *Ovid.* The authors will be studied from a literary point of view. One half-year, 2 hours.

3. ROMAN SATIRE.—History and characteristics of Roman Satire. Selections from *Horace*, *Persius*, *Petronius*, *Juvenal.* Parallel studies in English Literature. One half-year, 2 hours.

4. ROMAN HISTORY.—Roman conceptions of the philosophy of history. The Early Historians (Peter's Veterum Historicorum Romanorum Reliquiæ). *Cœsar*, Books VI, VII; *Sallust*, *Catiline*; *Livy*, Selections from Books I, IX, XXI; *Tacitus*, Annals XIV, XV, Histories V. Short Studies in *Nepos*, *Velleius Paterculus*, *Valerius Maximus*, *Quintus Curtius*, *Suetonius.* One year, 2 hours.

5. ROMAN LIFE FROM ORIGINAL SOURCES.—A study of manners, morals, politics and religion under the late Republic and the Empire. *Cicero*, Selected Letters; *Petronius*, Cena; *Pliny*, Selected Letters; *Martial*, Selected Epigrams. Readings will be prescribed from the books on Roman Antiquities contained in the College Library. Reports on special topics will be required from members of the class. One year, 2 hours.

6. VERGIL.—The *Aeneid*, Books VII–XII, the *Bucolics*, and selections from the *Georgics.* One half-year, 2 hours.

7. LATIN COMPOSITION.—Study of idiom. Translation into Latin prose. Original essays in Latin. One hour a week throughout the year.

ENGLISH.

The following courses are offered:

1. *History of the English Language.*—One-half of the first half-year, 2 hours. Required of Freshmen. Emerson's *A Brief History of the English Language*, Parts I–IV.—PROFESSOR PARSONS.

2. *Rhetoric and Composition.*—Written exercises and conferences. One and one-half terms, 2 hours. Required of Freshmen.—MR. GULICK.

3. *English Composition.*—Advanced course. First half-year, 2 hours. Required of Sophomores.—PROFESSOR PARSONS.

4. *American Literature.*—Authors studied: Irving, Cooper, Poe, Bryant, Hawthorne, Longfellow, Emerson, Lowell, Holmes, Whittier. Essays. Second half-year, 3 hours. Required of Sophomores (except as stated on page 24). Open to Juniors and Seniors.—PROFESSOR PARSONS.

5. *Early English Literature.*—From the Anglo-Saxon Conquest to Milton, inclusive. The principal literature of the early periods read rapidly, and Chaucer, Spenser, Bacon and Milton studied carefully. Essays. First half-year, 3 hours. Elective for Juniors and Seniors.—PROFESSOR PARSONS.

6. *The Elizabethan Drama.*—(*a.*) Marlowe, Ben Jonson, Beaumont and Fletcher, Webster, studied with Thayer's Best Elizabethan Plays. The larger part of the half-year devoted to Shakespere. The principal plays read rapidly, with special attention to the development of the author's genius. Essays. Second half-year, 3 hours. Elective for Juniors and Seniors.—PROFESSOR PARSONS.

(*b*) A critical text study of three dramas of Shakespere. The class meets once a week for a two-period session. In 1898-9 King Lear, Macbeth, and Hamlet were studied.—PROFESSOR AHLERS.

7. *English Poetry.*—From Dryden to Wordsworth. Authors studied: Dryden, Pope, Thomson, Gray, Cowper, Burns, Scott, Byron, Moore, Shelley, Keats, Coleridge, Southey, Wordsworth. Each student writes an exhaustive essay on one author for criticism by the class. First half-year, 3 hours. Elective for Seniors.—PROFESSOR PARSONS.

8. *Victorian Literature.*—Authors studied: Carlyle, Tennyson, Newman, Arnold, Ruskin, Robert Browning. Essays. First half-year. 3 hours. Elective for Seniors.—PROFESSOR PARSONS.

9. *English Prose.*—From Bunyan to De Quincey. Authors studied: Bunyan, Addison, Swift, Johnson, Goldsmith, Burke, Macaulay, Lamb, DeQuincey. Each student writes an exhaustive essay on one author for criticism by the class. Second half-year, 3 hours. Elective for Seniors.—PROFESSOR PARSONS.

*10. *Anglo-Saxon.*—Bright's Anglo-Saxon Reader and the Sievers-Cook Old English Grammar. Lectures on Anglo-Saxon Literature. First half-year, 3 hours. Elective for Juniors and Seniors.—ASSISTANT PROFESSOR NOYES.

11. *Anglo-Saxon.*—Béowulf. Course 10 prerequisite. Second half-year, 3 hours.—ASSISTANT PROFESSOR NOYES.

12. *Seminary in Literary Criticism.*—This course is intended for advanced students of high standing who have given evidence of

---

* Not to be given unless applied for by at least six students.

special interest and attainment in the study of literature, classic or modern. Once a week. Minimum credit, 3 hours.—PROFESSORS AHLERS and PARSONS, MRS. EATON.

MODERN LANGUAGES.

GERMAN LANGUAGE AND LITERATURE.

GERMAN A:

Elementary Course.—Joynes-Meissner's *Grammar.* Andersen, *Maerchen;* Storm, *Immensee;* Hauff, *Das kalte Herz, Die Karavane;* Eichendorff, *Aus dem Leben eines Taugenichts.* 4 hours through the year.— PROFESSOR AHLERS and MRS. EATON.

GERMAN B:

Intermediate Course.—Riehl, *Fluch der Schoenheit;* Jensen, *Die braune Erica;* Chamisso, *Peter Schlemihl;* Heine, *Harzreise;* Gerstaecker, *Germelshausen;* Lessing, *Minna von Barnhelm;* Schiller, *Wilhelm Tell, Lyrics* and *Ballads.* Von Jagemann's *Prose Composition and Syntax.* 4 hours through the year.—MRS. EATON.

GERMAN C:

Schiller, *Maria Stuart, Die Jungfrau von Orleans;* Goethe, *Egmont;* Sime's *Life of Goethe.* 2 hours, first half-year.—PROFESSOR AHLERS.

GERMAN D:

Lessing, *Emilia Galotti, Nathan der Weise;* Rollestone's *Life of Lessing;* Goethe, *Iphigenie.* 2 hours, second half-year.—MRS. EATON.

GERMAN E:

An Outline of the History of German Literature. This course is conducted in English, and is open to all college students whether they are taking German or not. Kuno Francke's *Social Forces in German Literature* will be used as a textbook. This reading will be supplemented by twelve lectures by the instructor. 1 hour through the year. PROFESSOR AHLERS.

GERMAN F:

The *Nibelungenlied* and the Classic Period of the Twelfth Century. *Hartmann von Aue, Wolfram von Eschenbach, Gottfried von Strassburg.* Lectures and collateral reading. 2 hours through the year.—MRS. EATON.

*GERMAN G:

Middle High German.—Braune-Paul's *Mittelhochdeutsche Grammatik; Nibelungenlied; Kudrun; Walter von der Vogelweide.* 3 hours, one half-year; a fourth hour at the discretion of the instructor.—PROFESSOR AHLERS.

*GERMAN H:

Gothic.—Braune's *Gotische Grammatik;* Heyne's *Ulfilas.* 2 hours through the year.—PROFESSOR AHLERS.

GERMAN I:

The Faust-legend and its Development, and Goethe's Faust.

Synopsis of the Course:

CHAPTER I. Kindred Legends before the 16th Century.
(*a.*) Simon Magus. (*b.*) Ahasverus. (*c.*) Anthemios, Proterius and Theophilus. (*d.*) Cyprianus Antiochus. (*e.*) Tannhaeuser and Don Juan.

CHAPTER II. The historic Faust; the "Faustbuch" of 1587 and its development; the "Puppenspiele."

CHAPTER III. Faust Dramas before the 18th Century.
(*a.*) Calderon's El Magico Prodigioso.
(*b.*) Marlowe's Tragical History of Doctor Faustus.

CHAPTER IV. Faust in the 18th Century.
Lessing's Fragment; Maler Mueller, Klinger, etc.

CHAPTER V. Goethe's Faust.
(*a.*) The "Urfaust."
(*b.*) Faust, Part I, 1808.
(*c.*) Faust, Part II.

This course is conducted entirely in German. The class meets once a week. Open to the public.—PROFESSOR AHLERS.

GERMAN K:

The Poems of Goethe and Schiller.—This course is conducted entirely in German. The class meets once a week,—session one and a half hours. Open to the public.—PROFESSOR AHLERS.

FRENCH LANGUAGE AND LITERATURE.

FRENCH A:

Elementary Course.—Edgren's *French Grammar;* Super's *Reader;* About, *Le Roi des Montagnes;* Halévy, *L'Abbé Constantin.* Reading at sight. 4 hours through the year.—PROFESSOR AHLERS.

---

*German G and H are given in alternate years.

French B:

Intermediate Course.—Chassang's *Grammaire Française, Cours moyen.* Dictation. Sandeau, *Mlle de la Seiglière;* George Sand, *La Mare au Diable;* Corneille, *Le Cid, Horace;* Racine, *Andromaque, Athalie;* Molière, *Le Bourgeois Gentilhomme, Les Précieuses Ridicules, L'Avare;* Bowen's *French Lyrics;* La Fontaine, *Fables.* Modern prose writers. 4 hours through the year.—Mr. Gulick.

French C:

Racine, *Athalie, Andromaque, Phèdre, Les Plaideurs;* Corneille, *Le Cid, Cinna, Polyeucte.* 2 hours, first half-year.—Professor Ahlers.

French D:

Racine, *Esther, Brittanicus;* Corneille, *Le Menteur, Horace;* Molière, *Le Tartuffe, Les Femmes Savantes;* Victor Hugo, *Hernani.* 2 hours, second half-year.—Professor Ahlers.

French E:

History of French Literature.—Lectures and collateral reading. Two theses. 2 hours through the year.—Professor Ahlers.

French F:

A special study of Jean Jacques Rousseau, and a comparison between Rousseau and Byron. 2 hours through the year.—Professor Ahlers.

SPANISH LANGUAGE AND LITERATURE.

Spanish A:

Elementary Course.—Ramsay's *Text-book of Modern Spanish;* Matzke's *Spanish Reader.* Modern Prose writers. 4 hours through the year. For college students this course counts 3 hours.—Mr. Gulick.

Spanish B:

Extracts from the writings of Castelar, Selgas, Valera, Sista, and Cervantes. Composition. 2 hours through the year.—Mr. Gulick.

MATHEMATICS AND ASTRONOMY.

The courses offered in this department include the following subjects:

1. *Algebra.*—Series; the Binomial Theorem; Logarithms; Undetermined Coefficients; Theory of Equations. 4 hours till Christmas.

2. *Plane Trigonometry.*—The functions of one and two angles: the solution of triangles; simple applications. 4 hours during January; 2 hours, second half-year.

3. *Solid and Spherical Geometry.*—Planes and Lines in Space; Polyhedra, the Cylinder, Cone and Sphere; Spherical Triangles. 2 hours, second half-year.

4. *Elementary Surveying.*—Field work and computation. Counts as 2 hours, second half-year.

5. *Analytical Geometry (Elementary).*—Plane Loci of first and second order. 2 hours, first half-year.

6. *Analytical Geometry (More advanced).*—More thorough study of plane loci, some attention being given to modern methods. 3 hours, second half-year.

7. *Calculus, Differential and Integral.*—2 hours, first half-year; 5 hours, second half-year.

8. *History and Logic of Mathematics.*—This course is planned especially for those who are fitting themselves to be teachers of mathematics.

9. **Modern Synthetic Geometry.*—4 hours, one half-year.

10. **Differential Equations.*—4 hours, one half-year.

11. ** Elementary Theory of Functions.*—4 hours, one half-year.

12. *Astronomy* (*Elementary*).—Required in some of the courses leading to the degree of the S. B., in Junior year. To Ph. B. Sophomores alternative with Analytical Geometry (Course 5 above). Elective to Juniors and Seniors. First half-year, 4 hours. The descriptive, rather than the mathematical side of Astronomy, is emphasized, and the work conducted in the form of recitations, supplemented with lectures.

13. *Astronomy* (*Observations and Computations*).—The student is expected to make free use of the telescope. Second half-year, 4 hours. This course, for S. B. students, is in continuation of the preceding. It is also elective to Juniors and Seniors in the A. B. and Ph. B. courses.

14. *Mathematical Astronomy.*—Planetary Orbits, etc. 2 hours. Elective to S. B. students in Senior year.

15. *Elementary Meteorology.*—2 hours, second half-year.

---

* Of courses 9, 10, 11 only two are given during one and the same year.

PHYSICS.

ELEMENTARY COURSES.—Prerequisite: *Plane Trigonometry.*

1. Required for the degree of S. B.; alternative with Course 2 for the degree of Ph. B., and with Course 2 or Chemistry for the degree of A. B. Conducted by means of recitations from text-books, informal lectures, and laboratory practice (strictly quantitative). 2 hours for one half-year (Elementary Dynamics, etc.), and 4 hours for one year (Heat, Sound, Light, Electricity and Magnetism). *All students expecting to continue the study of Physics beyond the Sophomore year should elect this course.*

2. Alternative with Course 1 for the degree of Ph. B., and with Course 1 or Chemistry for the degree of A. B. Similar in general character to Course 1, but briefer. 4 hours for one year.

Text-books: Lodge's *Elementary Mechanics*, Ganot's *Elements of Physics*, Ames's *Theory of Physics*, Ames and Bliss's *Manual of Experiments in Physics.*

MORE ADVANCED COURSES.—Prerequisites: *Course 1* or *Course 2* and *Calculus.*

Courses in *Dynamics*, *Theory of Heat* (including *Thermodynamics*), *Theory of Sound*, *Physical Optics*, and *Electricity and Magnetism* will be offered, at the discretion of the instructor, to properly qualified students; and, so far as practicable, the facilities of the laboratory will be placed at their disposal for more advanced work than can be undertaken in Courses 1 and 2.

For the year 1899–1900 the following courses are offered:

3. (*a.*) *Theory of Heat*, including Thermodynamics. (*b.*) *Electricity and Magnetism*, including the elements of the mathematical theory, the modern theory of electrolysis, and a detailed treatment of the most important mechanical conceptions of electricity and magnetism that have been advanced. 5 hours, through the year.

4. *Physical Optics.*—3 hours, through the year.

5. *Dynamics.*—2 hours, through the year.

6. *Alternating Currents of Electricity.*—2 hours, second half-year.

CHEMISTRY.

REQUIRED WORK.

Junior Class, A. B. Course. Beginning Chemistry.—(A. B. students are allowed to take either Physics or Chemistry as the required work in science.) The time given to the subject in this course comprises four periods a week of recitation, discussion or lectures, and four periods of work in the laboratory. The periods of recitation and laboratory work taken together count as four hours a week upon the time requirements of the year. In order, however, that the hours taken for this subject may not be proportionately excessive, the laboratory work is considered a part of the usual preparation of lessons, and the length of time exacted for study or writing is made correspondingly short. The general text-book work (chiefly upon Inorganic Chemistry) is supplemented by lectures and discussions upon the fundamental laws of chemistry, the applications of chemistry to sanitary science, medicine, and some of the arts, and also by the occasional preparation of papers from descriptions given in technical books, and by reports of visits to accessible metallurgical and manufacturing establishments. The experimental work is made very thorough and exacting, to secure a practical familiarity with the substances studied, and with the methods of manipulation practiced in chemical laboratories. The course covers sufficient Qualitative Analysis to enable the student to separate the common metals and acids, and includes a few simple determinations in Quantitative Analysis. The text-book is Remsen's Introduction to the Study of Chemistry.

Sophomore Class, Ph. B. Course. Second Year Work.—The purpose of the course is to give to the student a general knowledge of chemistry. The second term is devoted chiefly to Organic Chemistry. The chief theories and laws are studied with reference to the explanation of chemical phenomena. The practical application of chemistry in the arts, and its uses in the sanitary regulation of daily life and work, are brought prominently forward. The student is also trained to obtain readily from technical works the data and details familiar only to the professional chemist. The preparation of abstracts from books on chemical technology and sanitary science, and discussions upon recent discoveries and applications of chemistry, will occasionally take the place of the usual recitation. The work in the laboratory comprises a short course in Qualitative Analysis, a series of experiments chiefly quantitative in character, and the preparation of a number of inorganic and organic compounds.

The work of each student must be performed and reported individually, and occasionally such reports will be discussed by the class.

. ELECTIVE WORK (ADVANCED).

The following electives have been arranged for students who wish to continue the chemical work of the Sophomore year, Ph. B. Course:

(a.) *General and Applied Chemistry.*—This course follows in the main the outlines of the work of the required course. Theoretical Chemistry is much more fully treated, and more elaborate and delicate experiments are required, but the preparation of inorganic compounds constitutes the greater portion of the laboratory work. The more recent advances, both in Theoretical and Applied Chemistry, are noted and discussed in connection with the various elements or groups under consideration. The applications of chemistry to the arts are studied in greater detail, and the modern uses of chemistry in the sciences of Biology, Medicine, Geology, etc., are treated as fully as the length of the course will permit. Instruction is given in part by lectures, but references are freely made to the works of Remsen, Fownes, Roscoe and Schorlemmer, etc., for particular subjects. Certain works on Sanitary Science are assigned for private study and the preparation of abstracts and written discussions. In lieu of the usual preparation of lessons for recitation, students are required to perform in the laboratory the experiments given in the lectures and such others, in addition, as may be outlined for practice. The hours of lecture and recitation are four a week, continued for one year. The hours required for laboratory work are six a week for the same period. Both together count as four hours on the time requirement of the year.

(b.) *Qualitative Chemical Analysis.*—This course is open only to students who, by previous study of General Chemistry, are properly qualified for the work. In the first half-year, five periods, and in the second half-year, ten periods, are assigned to this subject, and are devoted mainly to laboratory work. Upon the time schedule credit is given for two hours in the first half-year and for five hours in the second half-year. The lectures will be given at such hours and at such intervals as will be best suited to the class. A text-book for reference and study will be assigned at the beginning of the year. The work of the course comprises experimental drill in obtaining characteristic reactions of the more common elements, study of empirical formulæ and symbolic expression of reactions, solution of substances, separation of groups of elements, and finally analysis — first of simple salts, and later of complex mixtures. The analytical work is confined almost wholly to inorganic substances, but includes certain common organic acids and a few organic bodies of general and medicinal use. The final examination is both experimental and theoretical in character.

(c.) *Quantitative Chemical Analysis.*—The course in Quantitative Analysis presupposes a knowledge of General Chemistry and Qualitative Analysis. In it are included the volumetric measurement of liquids, the accurate use of balances, and the general subject of Stoichiometry. In the earlier part of the course, the student is made familiar with gravimetric and volumetric determinations of single elements, by approved methods. Complete analysis of simple salts follow next in order. Salts, alloys, minerals, ores, slags and mineral water are among the substances required to be analyzed by the student. The analysis of inorganic substances only is studied in this course. As a final part of his work in the course, the student is given practice in a few of the commercial or rapid determinations of the constituents of ores and minerals.

The course occupies one year. The laboratory work occupies three consecutive hours, four days a week (counted as four hours on the requirement of the year). Lectures will be given at intervals through the course. The text-book will be *Quantitative Analysis* by Cairns.

S. B. COURSE IN CHEMISTRY.

An outline of this course is given on page 27. It includes as required studies the electives marked (a.) (b.) and (c.), outlined above and Organic Chemistry. Theoretical Chemistry may also be taken in this course as an elective. Other subjects must be chosen from the electives offered in other courses, to make up the full number of schedule hours required.

DEPOSITS, CHEMICALS, SUPPLIES, ETC.

A cash deposit, estimated as probably sufficient to defray the cost of chemicals, gas and non-returnable supplies, must be made by each student at the beginning of the course. Glassware and necessary apparatus are loaned, and must be returned in good condition for reissue, or be paid for if damaged or destroyed. Chemicals, supplies and apparatus are issued to students as needed. The deposit required for each course is as follows:

General Chemistry—Preparatory course	$4 00
General Chemistry—Junior year, A. B. course	5 00
General Chemistry—Sophomore year, Ph. B. course	6 00
General Chemistry—Elective course	10 00
Qualitative Analysis—Elective course	15 00
Quantitative Analysis—Elective course	15 00
Organic Chemistry—Elective course	15 00

BIOLOGY.

A laboratory, equipped with dissecting tables and trays, reagents, seventeen compound microscopes, a dissecting microscope, a sledge microtome, and other apparatus, affords the larger facilities for the work offered in the line of Biology. Students supply for themselves the smaller items of equipment and a considerable part of the biological material required for their work.

Elementary Biology.—Required of Freshmen in the Ph. B. and S. B. courses. The course extends through the year, comprising three laboratory exercises a week, usually of two hours each, with prescribed readings and other exercises at the discretion of the instructor. Special attention is given to the morphology of the Arthropoda, the work including the dissection of the Crayfish and Grasshopper, and comparison of the latter with other Tracheata. This is followed by a study of Sponges, Corals, Echinoderms, Mollusks. Considerable time is also given to the study of Foraminifera, fresh-water Rhizopoda, ciliated, flagellated, and tentacled Infusoria, Rotifera and other microscopic Vermes, Hydra and marine Hydrozoa, and Molluscoidea. The botanical part of the work begins with the histology of the flowering plants. Pine and hard wood are studied in transverse, radial, and tangential section; then exogenous and endogenous herb-stems, leaves, roots and plant-hairs. Then follows the study of selected types of non-flowering plants, such as Yeasts, Bacteria, Oscillatoriæ, Moulds, Hygrocrocis, Diatoms, Desmids, Spirogyra, Lichens, Fungi, Mosses, Ferns. No text-book is closely followed, the work being personally superintended by the instructor; but students are required to provide themselves with some elementary book or books on Biology, and they have access to a small working library which the College maintains in the laboratory for their especial use, and also to certain monographs in the private library of the instructor. There is a laboratory fee of one dollar.

Cryptogamic Botany.—Required of Sophomores in the Biology division of the S. B. course; 2 hours, first half-year; and 3 hours, second half-year. Advanced study of the non-flowering plants. Aside from the collecting of plants, some outside reading and occasional recitations or quizzes, the course consists of laboratory work. Text-book: Bastin's *College Botany.* As reference-works, the writings of Sachs, De Bary, Bessey, Rabenhorst, Wolle, Cooke, Fries, Ellis, etc., are used. *Elementary Biology* is a prerequisite.

Zoology.—Required of Sophomores, in the S. B. courses in Biology, Geology, and Chemistry; in the A. B. course, alternative with French or German; and elective to others in the S. B. and

Ph. B. courses. Recitations and special exercises; 3 hours, second half-year. Text-books: Chapin and Rettger's *Zoology*, and Hertwig's *General Principles of Zoology*. There is a laboratory fee of fifty cents.

Comparative Anatomy of Invertebrates.—Required of Juniors in the Biology division of the S. B. course; 3 hours through the year. Laboratory work, with references to writings of Huxley, Gegenbaur, etc. Zoology is a prerequisite.

Comparative Anatomy of Vertebrates.—Required of Seniors in the Biology division of the S. B. course; 3 hours, first half-year. Laboratory work, with references to the writings of Flower, Wiedersheim, Huxley, Cuvier, etc. Zoology is a prerequisite.

Comparative Embryology.—Required of Seniors in the Biology division of the S. B. course; 3 hours, second half-year. Recitations and laboratory work. Text-books: Hertwig, Korschelt and Heider's Text-book of Embryology (translated by Mark and Woodworth). Zoology and the Comparative Anatomy of Invertebrates and of Vertebrates are prerequisites.

**Physiology.*—Elective to all college students; 3 hours, first half-year. The laboratory work consists of the dissection of Vertebrates, special attention being given to the location of organs. Text-book: Thornton's *Human Physiology.* Reference books: Foster, Flint, Martin, etc. The library of the El Paso County Medical Association is available in addition to the College library. Prerequisites: Elementary courses in Physics and Chemistry.

**Histology.*—Elective to all college students; 3 hours (6 hours laboratory work), second half-year. The exercises consist mainly in the preparation and hardening of tissues for permanent mounts, regular use being made of the microtome. In addition, some time will be devoted to the examination and drawing of histological mounts belonging to the department, and to occasional recitations. As a laboratory guide some such work as *Stohr*, *Stirling*, or *Piersol* will be used. There is a laboratory fee of two dollars.

**Embryology and Bacteriology.*—Offered in 1899-1900 in place of the courses in Physiology and Histology.

GEOLOGY.

The study of Geology is peculiarly attractive in the vicinity of Colorado Springs. Few localities present strata of so many geological ages or so varied an assemblage of rock and mineral species. Fossils of systems as early as the Cambrian and as late as the Quaternary occur within a radius of six miles of the College. Veins, dikes, faults, caves, flood-plains, river-erosion, sand-carving and the results of orogenic and glacial action are all well illustrated near at hand.

---

*These courses are intended primarily for students who expect to study medicine. By taking in addition courses in Biology, Zoology, Chemistry, and Physics, the student can complete in college the equivalent of the work usually done in the first year of a Medical School.

To the wealth of geological illustration that nature presents to the student in this district, the College Museum and a selection of lantern slides add many instructive specimens and views. The equipment of the geological laboratory includes a lithological microscope, a lithological lathe, iron and glass plates for the polishing of rock sections, standard series of mounted microscopic rock-sections and some of the more important of the micro-photographically illustrated atlases of lithology, a set of celluloid crystal models, a complete set of the topographical maps of the State of Colorado, as far as published.

Geology.—Required of Juniors, Ph. B. and S. B. courses; 4 hours through the year. Recitations and special exercises, supplemented by excursions to points of geological interest. In the first half-year Dynamical and Structural Geology are studied; in the second, Historical Geology; Le Conte's *Elements of Geology*, Scott's *Introduction to Geology*, and Neumayr's *Erdgeschichte*, are the text-books used. Zoology is a prerequisite.

Special students, to elect Geology, must previously have had, as preparation for the work of the first half-year, (Inorganic Geology) Elementary Chemistry; and for that of the second half-year (Historical Geology), at least a half-year's work in Biology or Zoology.

Dynamical Geology.—Required of Sophomores, S. B. course, 4 hours, second half-year The course includes both epigene and hypogene action, and students taking it are required to make a number of excursions to the more important localities which illustrate the subject. Text-books are the same as for *Geology*.

Mineralogy.—Required of S. B. Juniors, 4 hours through the year. The full course is prefaced by a short course in Crystallography. During the second half-year laboratory work with blow-pipe analysis is given for the determination of minerals. The College is provided with a large collection of mineral specimens. Excursions are made to the principal mineral localities of the surrounding region. Williams's *Crystallography*, Dana's *Manual of Mineralogy* and *Petrography*, and Tschermak's *Mineralogie* are text-books for this course.

Lithology and Petrography.—Required of S. B. Seniors, 3 hours, one half-year. The course in Lithology is largely devoted to a detailed study of the Educational Series of Rock Specimens prepared by the U. S. Geological Survey at Washington. Williams's *Manual of Lithology* and *Bulletin of the U. S. G. S. No. 150* are used as text-books.

Students taking *Petrography* are taught to prepare thin rock sections in the study of which the petrographical microscope is used. Physics is a prerequisite. Text-books: Rosenbusch's *Microscopical Physiography of Rock-making Minerals* (Iddings translation); Tschermak's *Mineralogie.*

Economic Geology.—Required of S. B. Seniors, 3 hours, first half-year. The course in Economic Geology includes a study of ore deposits. Text-books: Tarr's *Economic Geology of the United States* and Kemp's *Ore Deposits.*

Invertebrate Paleontology.—Elective for Juniors in the Geology division of the S. B. course; 3 hours through the year. The work embraces laboratory study of the principal fossil groups, preceded by a study of the same or allied recent types. The student is guided in the consultation of leading authorities, Zittel, Steinmann and Doederlein, Bernard, Nicholson, Tryon, etc. Zoology is a prerequisite.

Vertebrate Paleontology.—Elective for Seniors in the Geology division of the S. B. course; 3 hours, second half-year. Laboratory studies in the Comparative Osteology, Taxonomy and Evolution of the Vertebrata. The student makes use of the general works and monographs of Flower, Zittel, Huxley, Cuvier, Leidy, Cope, Marsh, etc. Zoology is a prerequisite.

Physiographic Geology.—Elective for Juniors and Seniors, Ph. B. and S. B. courses. The recent advance made in the study of Physiographic Geology and its introduction into schools of lower grades make it desirable that a more advanced course should be offered college students in this important branch of Geology. Text-book: Tarr's *Physical Geography.*

ECONOMICS.

The instruction in this department consists of a systematic course in the elements of Political Economy, required of all students, followed by elective courses in special subjects. The systematic course is a prerequisite for the pursuit of any of the elective courses.

Elements of Political Economy.—Required of Juniors. Lectures, recitations, discussions, assigned reading and reports. Text: Walker's *Political Economy* (Adv. Course). 4 hours, first half-year.

Public Finance.—Junior and Senior elective. This course treats of taxation, public expenditure, public debts, and the budget. Instruction is given mainly by lectures, with reading in various systematic treatises and monographs. Text: Bastable's *Public Finance.* 3 hours, second half-year.

Money and Banking.—Junior and Senior elective. An historical and theoretical course in money and banking, treating especially the production of the metals, the theory of value, the history of prices, bimetallism, paper money, bank notes, etc. Lectures, recitations, reports, and discussions. Texts: Walker, *Money;* White, *Money and Banking;* Dunbar, *Theory and History of Banking.* 2 hours, first half-year.

Railroads.—Junior and Senior elective. A course on the history of transportation and its present problems, with especial reference to the relations of the railroads to the State, to the public, and to the employés. Lectures, recitations, etc. Texts: Hadley, *Railroad Transportation;* Dabney, *Public Regulations of Railways.* 2 hours, second half-year.

Socialism.—Junior and Senior elective. An historical and critical course in socialism and socialistic theory. Especial attention is paid to the historical basis of socialism, the French revolution, the idealists, the German scientific socialists, the Christian socialists, the State socialism of to-day, and also to the various attempts at socialistic reform, such as coöperation, profit-sharing, etc. Lectures and recitations. Texts: Ely, *French and German Socialism;* Schaeffle, *Quintessence of Socialism.* 2 hours, second half-year.

POLITICAL SCIENCE.

Three courses are offered in Political Science: first, an historical course, showing the broad political features of the various historical forms of government; second, a comparative study of the chief existing governments; third, a brief course in International Law. Notice also the course in Socialism, described under the department of Economics.

Historical Politics.—Junior and Senior elective. This course aims to trace the origin and growth of government from its primitive forms to the establishment of the modern states, studying successively the semi-amorphous horde, gentile society, the ancient city, the Athenian Democracy, Greek Confederations, the Roman Republic and Empire, the Germanic folk, the feudal system, the political system of the Church, the Holy Roman Empire, the rise of national states, the development of absolute and constitutional monarchy, the growth of democracy, etc. The course is conducted mainly by means of lectures, supplemented by recitations, reports and extensive outside reading. Text: Wilson's State. 3 hours, second half-year.

Comparative Politics and Constitutional Law.--Junior and Senior elective. The course is a study and comparison of the governments of the chief modern states. It aims to give an exposition of the constitutional law of the several States and of their actual political organization. The great problems of federalism and centralization, presidential and responsible ministerial government, colonial government, and civil liberty, receive especial consideration. This course is given by means of lectures, recitations, and collateral reading. References are made to the principal cases in Thayer's Cases. Text: Wilson's State. 3 hours, second half-year.

International Law.--Junior and Senior elective. A brief course in the elementary principles of International Law, with especial reference to American problems, such as arbitration, law of neutrality, citizenship, extradition, and to questions of diplomatic policy, such as the Monroe Doctrine. The course is conducted principally by recitations, discussions, and reports, with frequent reference to Wharton's Digest, Snow's Cases and the "Treaties and Conventions of the United States." Text: Davis' International Law. 1 hour, first half-year.

HISTORY.

If the student intends to take both English history and the history of the United States, it is desirable that he should pursue the first before taking up the second. The course in the history of the Middle Ages is continuous with the course in the history of the Renaissance, and the first is required of those electing the second. The course in Historical Politics, which is described among the studies in Political Science, is a course in general political and constitutional history.

English History.—Junior and Senior elective. A course in the political history of England from the earliest times to the American War. The course is conducted chiefly by recitations and collateral reading, supplemented by lectures on the constitutional and economic development. Text: Gardiner's *Student's History of England.* 4 hours, first-half year.

United States History.—Junior and Senior elective. A course in the history of the American colonies and the United States until recent times. This course is conducted by recitations, reading and lectures. Text: The "*Epochs of American History*" *Series.* 4 hours, second half-year.

History of the Middle Ages.—Junior and Senior elective. This is a narrative and descriptive course in the history of the Middle Ages. Special attention is paid to the social, economic, religious, and artistic aspects of the period. It is conducted by lectures, recitations and extensive collateral reading. Text: Duruy's *Middle Ages.* 2 hours, first half-year.

History of the Renaissance.—Junior and Senior elective. This course is conducted in the same manner as the course on the Middle Ages. 2 hours, second half-year.

The Ancient Régime and the Revolution.—Junior and Senior elective. This is a course in the history of Western Europe in the seventeenth and eighteenth centuries. The instruction is given chiefly by means of lectures and required readings. 2 hours, first half-year.

The Napoleonic Era and Modern Times.—Junior and Senior elective. This course is continuous with the last and is given in the same manner. 2 hours, second half-year.

Historical courses, amounting to four hours a week for one-half year, must be included by each student in the elective work of Junior or Senior year.

BIBLE STUDY.

Open as an elective to Juniors and Seniors. Freshmen and Sophomores having time to take the work will be allowed advanced credit on Junior and Senior electives. Academy students will be allowed to enter the class, but will receive no credits. One hour a week throughout the year.—PROFESSOR PARSONS.

The following courses are offered, which will be taken in successive years:

I. Introduction to the Books of the New Testament.
II. The Life of Christ (two years).
III. Studies in the Books of Samuel.
IV. The Life of Paul.

In 1899–1900 the class will study Course III.

RHETORIC AND ORATORY.

A general course in voice development is required in the Sophomore year and elective courses are offered which seek to prepare the student for every form of public speaking.

Voice and Pantomime.—During the Sophomore year a course in voice and body training is given with the end in view of an intelligent interpretation of literature. 2 hours, through the year.

Oratory.—Public speaking is studied in all its forms. The careful preparation of an oration and its delivery in public constitutes a large share of the work. A prize of $25 is offered by the College Oratorical Association for the best oration delivered in a contest at the end of the year. 1 hour through the year.

Forensics.—A course is offered covering the Nature of Argumentation, Briefs and Brief-drawing, Preparatory Reading for Argumentation, The Nature of Evidence, and the preparation of three forensics. 1 hour through the year.

Extempore Speaking.—Special attention is given to the technical forms of public addresses. 1 hour, first half-year.

Vocal Interpretation.—This course includes studies in the masterpieces of English literature and in the nature and interpretation of lyric, epic, and dramatic forms.

Shakespeare—Two plays will be studied with special reference to their vocal interpretation. 1 hour, through the year.

Debate.—There are three College literary societies in which debate is a prominent feature. The Apollonian Club and the Pearsons Society hold an annual debate for a prize of $60. The second debate with the University of Nebraska occurs April 21, 1899.

PHYSICAL TRAINING.

Regular exercise is required of all the students, and the work is adapted to the needs of each.

The gymnasium is a separate building, heated by steam and well fitted with all the necessary modern appliances for the most approved methods of physical exercise. The basement is provided with lavatories containing shower-baths (hot and cold water), lockers and private dressing rooms.

Class drills are held for young men and young women, separately. In addition, students may undertake individual work under the advice of the instructor, and may have special hours assigned for this purpose. The physical instructor is Mr. William Lavender, a pupil of the Y. M. C. A. Training School of Chicago.

Out door exercise is recommended in the majority of cases, and the sunny climate of Colorado Springs makes it possible for such exercise to be taken with great regularity through almost the entire year. Colorado College possesses one of the oldest college golf clubs of the country. This popular game is now being recommended by physicians as especially adapted to the needs of those who are unable to participate in more violent exercise, while the beautiful country about Colorado Springs and the delightful open winters admit of its being played the year round, and make it very popular. Tennis is also played during the entire season. Several new tennis courts have been laid out upon the College grounds and the facilities are sufficient to accommodate all those who wish to exercise in this way. The College is also represented in base-ball, foot-ball, tennis and field sports in a State intercollegiate league.

In the rear of the College buildings, and facing the mountains to the west, there is a natural amphitheatre. This has lately been converted into an athletic park. About five acres of land have been inclosed and brought to a level. A grand stand with a seating capacity of 600 has been erected. A quarter-mile running track encircles the base-ball ground. For situation and adaptation to its purpose there is no more complete and satisfactory park in the State. Its completion marks a new era in the College athletics.

The athletic interests of the College are controlled by an advisory board consisting of two members from the faculty, two from the city, one or two from the alumni, and one representative from each of the College classes. This board advises the students in all their sports, audits the accounts of managers, and raises and authorizes the expenditure of money for various athletic interests.

HONORS.

Scholarship Honors of two grades are awarded at Commencement for excellence in the work of the year. The Honor list for 1897–8 was as follows:

HIGH HONORS.

Hugh McLean, '01.

HONORS.

Grace Louise Bradshaw, '01.
Della Gandy, '98.
George Bradley Hawkes, '98.
Albert Ingersoll, '00.
William Percival Nash, '01.
Osie Smith, '01.
Benjamin Fleming Hill, Post Graduate.

SCHEDULE OF RECITATIONS.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
1 8:30	Physics I. Soph. Latin. Fresh. Mathematics A. III. English. [II. Government.] I. Latin:	[History of Philosophy] *Ethics.* Soph. English. [Jun. Polit. Economy.] Fresh. Mathematics A. II. Algebra. I. Latin.	[Hist. of Philosophy.] *Ethics.* *Soph. English.* [Jun. Polit. Economy.] Fresh. Mathematics A. III. English. II. Algebra. I. Latin.	[History of Philosophy] *Ethics.* Soph. English. Fresh. Mathematics A. [II. Government.] *II. Greek History.* I. Latin.	[History of Philosophy] *Ethics.* [Jun. Polit. Economy.] Soph. Oratory. Fresh. English A. *Surveying.* III. English. *II. Greek History.* I. Latin.
9:20	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.
2 9:45	[Jun. Polit. Economy.] *Zoology.* Fresh. Mathematics B. *Dynamics.* IV. Mathematics. III. Greek. II. Latin.	[Logic.] *Psychology.* *Zoology.* Fresh. Mathematics B. IV. Physics. III. Greek. II. Latin.	[Logic.] *Psychology.* *Zoology.* Fresh. Mathematics B. Ph. B. Chemistry. IV. Physics. III. Greek. II. Latin.	[Logic.] *Psychology.* Soph. Latin. Ph. B. Chemistry. Fresh. Mathematics B. IV. Mathematics. III. Greek. II. Latin.	[Logic.] *Psychology.* Soph. Latin. German B. III. Greek. II. Latin.
3 10:35	Geology. Soph. Greek. [Analytical Geometry.] [Astronomy.] IV. Physics.	Geology. Soph. Greek. Analytical Geometry. Fresh. Latin. IV. Physics.* III. Geometry.	Ph. B. Chemistry.* Fresh. Latin. IV. Physics. III. Geometry.	Geology. Soph. Greek. Ph. B. Chemistry.* Fresh. Latin. III. Geometry. [I. Roman History.] *I. English History*	Geology. Soph. Greek. Analytical Geometry. *Dynamics.* Fresh. Latin. III. Geometry. [I. Roman History.] *I. English History.*

4 11:25	German B. Physics 2. A. B. Chemistry. III. Latin. II. English. I. English.	German B. A. B. Chemistry. [Astronomy.] III. Latin. II. English. I. English.	German B. Physics 2. A. B. Chemistry. III Latin. [II. Physiology]. *II. Botany.* I. English.	A. B. Chemistry. Analytical Geometry. [Astronomy.] Fresh. English B. [II. Latin. II. English. I. English.	Ph. B. Chemistry. Fresh. English B. IV. Physics. III. Latin. [II. Physiology.] *II. Botany.* [I. Roman History.] *I. English History.*
5 12:15	French A. French B. A. B. Chemistry.* III. Expression. II. Greek.	French A. French B. A. B. Chemistry.* *Soph. Oratory.* II. Greek.	French A. French B. A. B. Chemistry.* II. Greek.	French A. French B. A. B. Chemistry.* II. Greek.	Jun. English. Ph. B. Chemistry.* French C. IV. English. II. Greek.
6 2:30	Sen. English. German E. Ph. B. Chemistry.* IV. Latin. [II. Physiology.] *II. Botany.* I. Algebra.	[Elective Eng. History.] *Elective U. S. History.* Fresh. English A. Physics 2. IV. Latin. III. Chemistry. [II. Physiology.] *II. Botany.* I. Algebra.	[Elective Eng. History.] *Elective U. S. History.* German C. Physics 1. Biology. IV. Latin. III. Chemistry. I. Algebra.	[Elective Eng. History.] *Elective U. S. History.* Physics 2. Biology. IV. Latin. III. Chemistry. II. Drawing. I. Algebra.	[Elective Eng. History.] *Elective U. S. History.* German C. Physics 1. Biology. IV. Latin. III. Chemistry. I. Algebra.
7 3:20	Sen. English.* Ph. B. Chemistry.* *Surveying.* IV. Greek.	Junior English. Physics 2.* IV. Greek. III. Chemistry.*	Senior English. French C. Fresh. Greek. Physics 1.* Biology. IV. Greek. III. Chemistry.*	Junior English. Physics 2.* Biology.* Fresh. Greek. IV. Greek. III. Chemistry.* II. Drawing.*	Senior English. Physics 1.* Biology * Fresh. Greek. IV. Greek. III. Chemistry.*
8 4:10	Ph. B. Chemistry.* German A.	Physics 1. German A.	German A. [Astronomy.]	German A.	

[Bracketed titles] are for the first half-year only. *Italicized titles* are for the second half-year only. The hours of gymnasium exercise, as well as those of elective studies, are inserted in the schedule at the opening of the academic year. *Continued from the preceding period.

THE CUTLER ACADEMY—FACULTY.

WILLIAM FREDERICK SLOCUM
President.

NATHAN B. COY, Principal
Latin and Greek.

LOUIS A. E. AHLERS
French and German.

SAMUEL J. BARNETT
Physics.

MAUDE BEMIS
Drawing.

ERNEST BREHAUT
Latin.

CHARLES BROOKOVER
Physiology and Botany.

P. E. DOUDNA
Mathematics.

ABBIE FISKE EATON
German.

M. CLEMENT GILE
Greek.

HENRY E. GORDON
Elocution and Rhetoric.

JAMES G. GULICK
French.

MARGUERITE LAMB
Chemistry.

HANNAH TAYLOR MUIR
Physiology and Hygiene.

ATHERTON NOYES
English and Greek.

EDWARD S. PARSONS
English.

WILLIAM STRIEBY
Chemistry.

FRANCIS WALKER
History and Government.

THE CUTLER ACADEMY.

This fitting school, named in honor of one of the most generous and steadfast friends of Colorado College (Henry Cutler, of Massachusetts), provides a thorough preparation for any college in the United States. While the preparatory training is the principal aim, the plan of study is so arranged as to meet the requirements of students who do not propose going on into college work. The course embraces four years, and the teaching is conducted by instructors most of whom are also engaged in the work of the College.

Correspondence concerning the Cutler Academy should be addressed to the Principal, Nathan B. Coy.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the Cutler Academy are expected to have finished the eighth grammar grade in the public schools, or to have covered the equivalent of the following work:

Arithmetic—Franklin or Wentworth.

English—Reed and Kellogg's Higher Lessons.

History—Montgomery's United States History.

Geography—Any school Geography.

Applicants for admission who have, within six months, been students in the Colorado Springs High School, must present certificates from the High School, showing completion of the work of the grade preparatory to the Academy class which they wish to enter. The High School will, upon payment of a small fee, provide special examinations for this purpose, if the regular examinations were not passed. The Academy will not examine such applicants, except upon subjects which were not included in their High School course.

Candidates for admission in 1899 are expected to present themselves at Palmer Hall on Tuesday, June 6, or Tuesday, September 12, at 9 A. M. Every applicant for admission must bring a satisfactory certificate of good moral character, together with a full written statement of studies pursued elsewhere. Any student whose influence is felt to be injurious to good scholarship or good morals will not be permitted to remain in the Academy.

COURSES OF INSTRUCTION.

CLASSICAL COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book	5
	Algebra: Through Fractions	5
	English: Review of Grammar, and the study of simple composition	4
	Required Supplementary Readings, see p. 67.	
	History: Roman	2
	Expression: Elementary work in voice and gesture	2
SECOND HALF:	*Latin:* First Latin Book completed; Bennett's Latin Grammar; A Junior Latin Book (Rolfe and Dennison); reading at sight	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: Study of composition continued; Gayley's Classic Myths; reading of poetry; figurative language; versification	4
	Required Supplementary Readings, see p. 67.	
	History: English	2
	Expression: Drill in recitation, and public rhetoricals	2

SECOND YEAR.

FIRST HALF:	*Latin:* Bennett's Latin Grammar; A Junior Latin Book; prose composition (Moulton and Collar; reading at sight	5
	Greek: Grammar (Goodwin); White's Beginner's Greek Book	5
	English: Genung's Outlines of Rhetoric; choice of words, phraseology, the sentence; constant writing	3
	Required Supplementary Readings, see p. 67.	
	Algebra: Quadratic Equations completed	2
	Government	2
SECOND HALF:	*Latin:* Grammar; A Junior Latin Book; Ovid, Stories from the Metamorphoses; reading at sight; prose composition	5
	Greek: Grammar; Xenophon (Coy's First Greek Reader); reading at sight	5
	English: Genung's Outlines of Rhetoric concluded; the sentence continued, the paragraph, the whole composition; constant writing	3
	Required Supplementary Readings, see p. 67.	
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2

THIRD YEAR.

FIRST HALF:	*Latin:* Grammar; Vergil, Aeneid, Books I–III; reading at sight; prose composition (Moulton and Collar)	5
	Greek: Xenophon's Anabasis (Goodwin), 2 books; reading at sight; written translations; composition (Collar and Daniell)	5
	Geometry: Two books of Plane Geometry (Beman and Smith)	4
	English: Shakespere's Macbeth, The Merchant of Venice; The Sir Roger de Coverley Papers in the Spectator	3
	Required Supplementary Readings, see p. 67.	
	Expression: Advanced work in voice and gesture.	2
SECOND HALF:	*Latin:* Grammar; Vergil, Aeneid, Books IV–VI; Vergil, Bucolics; reading at sight; prose composition	5
	Greek: Xenophon's Anabasis, 2 books, or an equivalent; reading at sight; composition	5
	Geometry: Plane Geometry completed	4
	English: Milton's Paradise Lost, Books I and II; Pope's Iliad, Books I, VI, XXII and XXIV; Goldsmith's Vicar of Wakefield	3
	Required Supplementary Readings, see p. 67.	
	Expression: Drill in declamation, public rhetoricals	2

FOURTH YEAR.

FIRST HALF:	*Latin:* Grammar; Cicero, Four Orations Against Catiline; reading at sight; prose composition	5
	Greek: Homer, 1,200 lines; composition; reading at sight	5
	German: Grammar; composition; reading. (See German A, p. 38)	4
	Mathematics: Review and general exercises	2
	English: Burke's Speech on Conciliation; Goldsmith's Vicar of Wakefield; De Quincey's Flight of a Tartar Tribe	1
	Required Supplementary Readings, see p. 67.	
SECOND HALF:	*Latin:* Grammar; Cicero, Orations for Archias, for Marcellus, and for the Manilian Law; reading at sight; prose composition	5
	Greek: Homer, 1,800 lines; written translations; Mahaffy's Old Greek Life; Jebb's History of Greek Literature; composition	5
	German: Grammar; composition; reading. First half-year's work continued	4
	Mathematics: Review and general exercises	2
	English: Tennyson's Princess and other poems; Lowell's Vision of Sir Launfal	1
	Required Supplementary Readings, see p. 67.	

NOTE.—In the *English* titles above, italics indicate the works intended for careful study; others are for reading.

LATIN-SCIENTIFIC COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	Algebra: Through Fractions	5
	English: As in corresponding half-year of Classical Course	4
	History: Roman	2
	Expression: As in corresponding half-year of Classical Course	2
SECOND HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: As in corresponding half-year of Classical Course	4
	History: English	2
	Expression: As in corresponding half-year of Classical Course	2

SECOND YEAR.

FIRST HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	Physiology: Huxley's Elementary Lessons in Physiology; Martin's Human Body	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Quadratic Equations completed	2
	Government	2
	Drawing	1
SECOND HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	Botany: Gray's Lessons and Coulter's Manual of Rocky Mountain Botany	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2
	Drawing	1

THIRD YEAR.

FIRST HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	Chemistry: Williams' Elements of Chemistry; laboratory practice	4
	Geometry: Two books of Plane Geometry	4
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2
SECOND HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	Chemistry: Work of first half-year continued	4
	Geometry: Plane Geometry completed	4
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2

FOURTH YEAR.

FIRST HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	German: German A (p. 38), as in Classical Course.	4
	Physics: Text-book and laboratory practice	4
	Algebra: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	1
SECOND HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	German: First half-year's work continued	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Review and general exercises	2
	English: As in corresponding half-year of Classical Course	1

SCIENTIFIC COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	Algebra: Through Fractions	5
	English: As in corresponding half-year of Classical Course	4
	History: Roman	2
	Expression: As in corresponding half-year of Classical Course	2

SECOND HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	Algebra: Through Radicals and easy Quadratic Equations	5
	English: As in corresponding half-year of Classical Course	4
	History: English	2
	Expression: As in corresponding half-year of Classical Course	2

SECOND YEAR.

FIRST HALF:	*Latin:* As in corresponding half-year of Classical Course	4
	Physiology: Huxley's Elementary Lessons in Physiology; Martin's Human Body	5
	English: As in corresponding half-year of Classical Course	3
	Algebra: Quadratic Equations completed	2
	Government	2
	Drawing	1
SECOND HALF:	*Latin:* As in corresponding half-year of Classical Course	5
	Botany: As in the Latin-Scientific Course	4
	English: As in corresponding half-year of Classical Course	3
	Algebra: Proportions, Progressions and allied topics	2
	History: Greek	2
	Drawing	1

THIRD YEAR.

FIRST HALF:	*German:* Grammar; composition; reading. (See German A, p. 38)	4
	Chemistry: Williams' Elements of Chemistry; laboratory practice	4
	Geometry: Two books of Plane Geometry	4
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2
SECOND HALF:	*German:* First half-year's work continued	4
	Chemistry: First half-year's work continued	4
	Geometry: Plane Geometry completed	4
	English: As in corresponding half-year of Classical Course	3
	Expression: As in corresponding half-year of Classical Course	2

FOURTH YEAR.

First Half:	*German:* A course corresponding to German B, p. 38	4
	French: Grammar; composition; reading. (See French A, p. 39)	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Algebra; Plane Trigonometry	4
	English: As in corresponding half-year of Classical Course	1
Second Half:	*German:* First half-year's work continued	4
	French: First half-year's work continued	4
	Physics: Text-book and laboratory practice	4
	Mathematics: Algebra; Solid Geometry; Spherical Trigonometry	4
	English: As in corresponding half-year of Classical Course	1

HONORS.

Scholarship Honors of two grades are awarded at Commencement for excellence in the work of the year. The Honor list for 1897–98 was as follows:

HIGH HONORS.

Aaron Joseph Lyman, '00.
Sarah Foss Wolverton, '01.

HONORS.

Cora Edith Draper, '98.
Marjorie True Gregg, '01.
Frank Hubbard Gleason, '98.
Mary Henry, '01.

Special prizes for proficiency in English Composition were given to Ella Henry, '99, and John Duane Leonard, '00.

APPENDIX.

REQUIRED SUPPLEMENTARY READINGS FOR ACADEMY ENGLISH CLASSES.

First Academy: Macaulay's Lays of Ancient Rome; Hawthorne's Wonder Book and Tanglewood Tales; Æsop's Fables; Gulliver's Travels; Arabian Nights; Scott's Ivanhoe; Dickens' Oliver Twist; Hughes' Tom Brown at Rugby; Ouida's A Dog from Flanders; Kingsley's Water Babies; Mark Twain's The Prince and the Pauper; Tennyson's Enoch Arden; Lamb's Tales from Shakespeare; Marden's Pushing to the Front.

Second Academy: St. Pierre's Paul and Virginia; Lanier's The Boy's King Arthur; Tennyson's Idylls of the King; Irving's Tales of a Traveller; Scott's Tales of a Grandfather; Dickens' Christmas Carol; Lanier's The Boy's Froissart; Bryant's Iliad; Scott's Talisman; Kingsley's Westward Ho; Martyn's Life of Phillips.

Third Academy: Scott's Marmion and The Lady of the Lake; Lamb's Essays of Elia; Irving's Conquest of Granada; Scott's Quentin Durward and Peveril of the Peak; Bulwer's The Last Days of Pompeii; Plutarch's Lives of Themistocles and Alcibiades; Shumway's A Day in Ancient Rome; Fiske's American Revolution; Personal Memoirs of U. S. Grant; *Cooper's Last of the Mohicans.*

Fourth Academy: Palmer's Odyssey (or Leaf's Iliad); Matthew Arnold's Sohrab and Rustum; Scott's Guy Mannering and The Heart of Midlothian. Curtis' Prue and I; Saintine's Picciola; Jane Austin's Pride and Prejudice; Marden's Architects of Fate; Scott's Ivanhoe.

NOTE.—Composition work in connection with the books whose titles are italicized.

LATIN PRONUNCIATION.

The Roman system of pronouncing Latin is used in both Academy and College.

PREPARATION FOR OTHER COLLEGES.

A student who is preparing in Cutler Academy for some other college than Colorado College, where the requirements for admission differ in some particulars, can, by timely application to the instructors, secure such modification of his course as will meet the necessities of his case.

COLORADO COLLEGE CONSERVATORY OF MUSIC.

FACULTY.

RUBIN GOLDMARK

Director of the Conservatory of Music and Instructor in Harmony, Counterpoint and Composition.

CLARENCE W. BOWERS

Instructor in Piano-forte and Organ.

CHARLES DOPF

Instructor in Violin.

OMA FIELDS

Instructor in Piano-forte.

R. F. SCHUBERT

Instructor in Violoncello.

FANNY AIKEN TUCKER

Instructor in Voice Culture.

COLORADO COLLEGE CONSERVATORY OF MUSIC.

Purpose and Scope.

The Conservatory of Music was established by the Trustees of Colorado College in the fall of 1894, with a view of affording a thorough education and superior advantages in all the higher musical branches.

While this movement had long been contemplated, the Trustees and Faculty were unwilling to undertake its organization until convinced that the same high standards in courses and instruction upheld in the College would be maintained in the Conservatory.

Necessity of the Conservatory.—The student of to-day in search of a better musical education is frequently at a loss whither to turn for instruction. There is certainly no lack of teachers, but the absence of system and of well-established standards that can serve as guides to the student often occasions considerable loss of time in experimenting, until suitable instruction is obtained. It is safe to assert that in no other branch are so many years wasted in unlearning that which has been badly acquired as in the study of music. By modeling its Conservatory after the best European and Eastern institutions, Colorado College aims primarily at thoroughness of instruction and the maintenance of artistic ideals.

Object of a Conservatory.—The object of a Conservatory is not to turn out pianists, organists, violinists, or singers. Its chief function is, while enabling the student to acquire technical proficiency in any desired branch of the art, at the same time to mould him into a musician. This can be accomplished only by the Conservatory. Here the students of the various departments are drawn closely together in the exercise of their art. Co-ordinate branches, into which the private student can with difficulty gain an insight, are opened to view, a musical atmosphere is created, the horizon is widened, and the student unconsciously absorbs much that must prove of inestimable value in his own specialty.

Necessity of Theoretical Study.—The study of Musical Theory, for a long time so strangely neglected by the great majority of instrumentalists and vocalists, is of prime importance to every musician. The more he knows of Harmony, Counterpoint, Composition and the general History of Music, the more will his musical culture increase, his artistic view be broadened, his appreciation of the classic works of our great masters be deepened, and the more will he be able to impart to others the fundamental principles whereon musical progress is based.

Theory and Practice Combined.—While laying especial stress on its theoretical department, the Conservatory also provides for a course of illustrated lectures on general musical subjects and a series of recitals and concerts during each year, thus furnishing the student an opportunity of viewing in practice what he has learned in theory.

Importance of the Study of Other Educational Branches.—Nor can the musician of the present day afford to neglect his general education. Literary and artistic accomplishments should go hand in hand. Languages, æsthetics and belles lettres are of importance to the serious musician. On this account it is especially fortunate that the Conservatory stands in such intimate relation to the College, and that the pupils may avail themselves of its varied privileges. The Director of the Conservatory, or members of the College Faculty, will gladly confer with any student and assist him in determining what courses of study he may advantageously pursue.

RELATION OF THE CONSERVATORY TO COLORADO COLLEGE.

This department is under the same general supervision as the other departments of Colorado College, and under the immediate management of the Director and Faculty of Music. The general rules of the College apply to students of music also.

For those students of the Conservatory who desire to make use of the collegiate department, the fee for one study in the College is fixed at ten dollars a term, or twenty dollars a year, a twenty per cent. reduction from the usual charge. For two or more studies, the regular tuition of seventeen dollars and a half a term, or thirty-five dollars a year, will be charged.

COURSES OF STUDY.

The following courses of study are offered: Piano, violin, organ, voice culture, harmony, counterpoint and composition, in addition to the special advantages to be enumerated further on. Instruction on the other instruments will be provided as soon as a sufficient demand is evident.

CLASS OR PRIVATE INSTRUCTION.

The student is offered a choice between class and private instruction. While there is a general tendency at present to prefer private lessons, attention is called to the marked advantages that result from class instruction. In the former case, the pupil has the entire attention of the instructor for the time of the lesson — one-half hour. In the latter, an hour is divided among three pupils. Thus, while the time of actual instruction is ten minutes less for each individual, all the pupils remain in the class the full hour; in this manner they learn as much by listening to their classmates as when receiving instruction themselves. The greater knowledge of musical literature thus obtained is not to be underrated. For those who intend to adopt teaching as a vocation, it is most important to profit by the mistakes of others. The system of class instruction is in vogue in all European and in most of our Eastern conservatories.

I. Piano Forte.—In this, as in all other departments, the instruction is adapted to the individual needs of each pupil.

The course is divided into three grades, *Elementary*, *Intermediate* and *Advanced.*

In the *Elementary* grade the student is taught to read music, to play scales and arpeggios, studies by Koehler, Heller, and the first books of Czerny's School of Velocity, sonatinas by Clementi and Dussek, and sonatas by Haydn and Mozart.

In the *Intermediate* grades the pupil is expected to master all the scales in double-thirds and double-sixths, Bach's Two-Part Inventions, and the French Suites, Etudes of Cramer, Clementi's Gradus ad Parnassum, Moscheles, op. 70, the earlier sonatas of Beethoven, selections from Mendelssohn and Schumann, and the less difficult works of modern composers.

The *Advanced* grade will study Bach's Well-Tempered Clavichord and the English Suites, Kullak's Octave-School, Tausig's Daily Studies, Etudes of Chopin, Schumann, Henselt, Rubinstein and Liszt, the piano concertos of Beethoven, Schumann, Chopin, Liszt, Grieg, Brahms and Tschaikowsky, as well as those works that constitute the repertory of the modern pianist.

Attention is also devoted in this course to sight-reading, accompaniment and ensemble-playing.

II. VOICE CULTURE AND SINGING.—Especial attention is given in this course to a correct management of the breath, the posing and preservation of the voice, artistic phrasing, and the development of a refined musical taste.

This course is divided into four grades: *Elementary*, *Intermediate*, *Junior*, and *Advanced*, and will cover the following works:

Elementary—Lessons in breathing; attack; simple tones; short intervals; slow trills; Behnke and Pearce's Exercises; easy songs.

Intermediate—Intervals; portamento; arpeggios; short scales; messa di voce; phrasing; Nava, Book I.; Concone or Sieber exercises; songs and sacred music.

Junior—Development of voice; scales; phrasing; Nava, Book II.; Concone or Luetgen exercises; Italian and German songs; oratorio.

Advanced—Scales; embellishments; further development of voice; Marchesi and Luetgen exercises; oratorio and opera; extended study of songs.

III. ORGAN.—It is required of pupils admitted to this course that they shall have first studied the piano for at least one year.

The *Elementary* grade is devoted to exercises in pedal playing, first studies in pedal obligato, hymn-tune playing, and elementary registration.

The *Middle* grade embraces an extended study of registration through the medium of pieces especially adapted for use as preludes and postludes in church service, including studies and pieces of the polyphonic type as represented by Bach and Rink, and the practice of quartette and chorus accompaniment.

The *Advanced* grade is devoted to the study of organ solo, including Bach's Preludes and Fugues, works in sonata form by Mendelssohn and others, modern works in free form, and lessons in improvisation and transposition.

IV. HARMONY.—This course includes the study of the various chords, their structure, relations and progressions, the working out of figured basses, the harmonization of choral-melodies, and modulation. All the principles are taken down by the students from demonstrations in the class-room. Richter's Harmony is used as a work of reference.

V. COUNTERPOINT.—This subject can be taken only by those who have satisfactorily completed the study of Harmony.

Simple and double Counterpoint for two, three, and four voices, imitations, canons, three and four part vocal and instrumental fugues. No text-book is used.

Harmony and Counterpoint have been placed on the list of elective studies in the regular College courses.

VI. COMPOSITION.—This subject is divided into two courses of one year each. A thorough knowledge of Harmony and Counterpoint is necessary for admission.

Part I. The construction of phrases and periods; the simpler instrumental forms; the scherzo, rondo, adagio, variations, and the sonata-form. The student does practical work in all these departments of Composition; the work is criticised in detail in the class-room. Especial attention is devoted to the analysis of the classic master works.

Part II. Instrumentation; the nature and characteristics of all the orchestral instruments, and their application in symphonic writing; the larger vocal and instrumental forms; the string quartette and various branches of chamber music; continuation of analysis and reading from score.

FREE ADVANTAGES.

Choral Society.—All the students of the Conservatory are admitted free of expense to the Colorado Springs Choral Society, which meets once a week under the leadership of the Director of the Conservatory, and gives two public concerts during the year.

Sight-reading Class.—A class in solfeggio and singing at sight is organized at the beginning of each year, and is free to all students of the Conservatory.

Special Lectures and Concerts.—All lectures and concerts given under the auspices of the Conservatory are free to students of music. A series of Organ Recitals by Mr. Clarence W. Bowers, and a number of Chamber Music Recitals by Messrs. Goldmark, Dopf, and Schubert are now being given.

It is the intention of the Faculty to make such lectures a feature of the department, thus stimulating a general interest in music by bringing various musical topics under discussion.

The Colorado Springs Musical Club, which holds bi-weekly meetings during the year and is this winter giving a course of concerts by world-famous artists, offers particular advantages to students of the Conservatory.

SPECIAL FEATURES.

The healthful surroundings and unexcelled climate of Colorado Springs, the quiet and seclusion that can so easily be obtained when desirable, are especial advantages to the music student. In many cases the study of music is a severe tax on the strength of the conscientious pupil. Here he can pursue musical and other studies, while at the same time gaining health and strength.

The student has access to the courses in Physical Training in the College, free of cost.

The College Library, of 25,000 volumes, is open to students of music on the same terms as to students of all other departments—three dollars a year.

EXPENSES—TUITION.

By the term of four months (coinciding with the College half-year), payable in advance; two lessons a week.

CLASS LESSONS, ONE HOUR LONG.

Piano-forte, violin, voice, organ, each	$25 00
Brass Instruments	17 50
Harmony	12 00
Counterpoint	18 00
Composition	22 50

PRIVATE HALF-HOUR LESSONS.

Piano-forte, violin, voice, organ, each	35 00

ROOMS AND BOARD.

Montgomery Hall, Ticknor Hall, and Hagerman Hall, the homes of College and Academy students, will be open to students of music at the same rates as to others. See page 96.

OTHER EXPENSES.

Library Fee (if Library is used), by the year	$3 00
Rent of Piano, one hour each day, by the term	3 00
Rent of Piano, two hours each day, by the term	5 00
Rent of Piano, each additional hour, by the term	2 00
Rent of two-manual organ, one hour each day, by the term	10 00

Students will be accepted only on payment of a full term's tuition. No deduction will be made for absence from lessons, except on account of prolonged illness.

DEPARTMENT OF ART AND DESIGN.

The relation of this department to the general work of Colorado College is similar to that of the Conservatory of Music. With the completion in October of the Perkins Memorial the department will be adequately housed in new and newly-equipped studios and exhibition rooms. During the summer full announcement will be made in regard to the courses in free-hand and mechanical drawing and in painting in oil, water colors and pastel to be given by Director Soutter and his assistants, Miss Bemis and Mr. Hastings.

In the first year of the course in free-hand drawing, one lesson a week is required of students in the Academy (see pages 63, 65, second year of the Latin Scientific and Scientific Courses). Such students pay only the ordinary Academy tuition fee.

Instruction in Mechanical Drawing is also given on similar terms to students of the College in the course leading to the degree of Bachelor of Science.

CIRCULAR OF INFORMATION.

LOCATION.

Colorado College is fortunate in its environment. The city of Colorado Springs, the county seat of El Paso county, and the third largest municipality of the commonwealth, is somewhat remarkable for its history and character, and is admirably adapted to be the seat of a college. Founded in 1871, under the direction of men of shrewd foresight and broad views, it has maintained from the beginning high standards of morality and culture. Saloons and the attendant destructive influences are absent. Radiating railroad systems, and the recent development of neighboring gold fields, have fostered its wealth. While for its first inhabitants it was indebted largely to Pennsylvania and the more northern Atlantic States, as well as to England, its present population of more than twenty thousand is drawn from all sections of the country, and to some extent from foreign lands. Numerous visitors are attracted hither yearly, both pleasure-seekers and health-seekers, but the invalids are so far outnumbered that the place has none of the depressing influence so often observed at noted health resorts. It is fully supplied with the conveniences of city life, yet the lover of nature might seek far before finding a spot more favored. The mountains are close at hand and their serrated line occupies about one-third of the horizon. In the center of the range, and at an air distance of less than a dozen miles, stands the renowned Pike's Peak. Its summit is reached by a cog-railway, as well as by bridle-paths and by an excellent carriage road. About its base are numerous cañons, and in one of these, around a celebrated group of mineral springs, has grown up the city of Manitou. The climate of Colorado Springs has attained a world-wide reputation. Its curative qualities consist largely in the opportunity for outdoor exercise, afforded by the great number of fine days and in the dryness and rarity of the air, which add a quality exhilarating to all and regarded as a specific in cases of malarial diseases, asthma, and incipient phthisis. Students unable to work in other climates may here continue their studies, while at the same time making a permanent gain in health. This plan has been successfully carried out in numerous instances.

COLLEGE BUILDINGS.

The buildings of the College are situated on a tract of land, including about fifty acres, which, by reason of the growth of the city, has come to have nearly a central location. The most important are the following:

Palmer Hall, the oldest building on the campus, was first occupied in 1880. It contains, in addition to lecture-rooms, the Chemical, Physical and Biological Laboratories, the Society Hall (used for the meetings of students' societies), and the Museum, a description of which may be found on page 83.

The Library, given in 1894 by the late Mr. N. P. Coburn, of Newton, Mass., and erected at a cost of $50,000, is an edifice of great architectural beauty, and admirably adapted to its purpose. It is of the "Peach Blow" sandstone of Colorado, and is roofed with red tile and copper mountings. The interior, with its ceiling twenty-six feet high, its red oak woodwork, its picturesque galleries, its inviting alcoves, its great stone fireplaces, is exceedingly attractive. Long arched windows, commanding views of the mountains and plains, extend from floor to ceiling. A full-sized cast of the "Winged Victory" of Samothrace stands at one end of the main hall. It was given in 1894 in memory of the Rev. Daniel P. Noyes and Helen Mc-

Gregor Noyes, his wife, by their three children, Miss M. McG. Noyes and Mr. Atherton Noyes (both then members of the College Faculty), and Mr. Edward P. Noyes, of Boston. In one of the recesses is a fine marble bust of Antinous, presented by Mrs. H. L. Ballou. A large case, containing Mr. A. L. Dickerman's collection of rare and valuable Indian curiosities, adds to the interest of the room. The well-lighted basement, designed to serve ultimately as a stack room, is at present furnished with pews of natural oak, and is used as the College Chapel.

THE PRESIDENT'S RESIDENCE, at the northern boundary of the campus, is a commodious building, purchased by the Trustees in 1888.

THE ASTRONOMICAL OBSERVATORY is the gift of Henry R. Wolcott, Esq., of Denver, and was completed in June, 1894. On the lower floor is a well-appointed lecture-room, with an adjoining study, and two smaller rooms designed respectively as a transit room and photographic dark room. Upstairs is the dome-room, containing the equatorial telescope, supported on a stone pier. The flat roof is an excellent place for naked-eye observation of the heavens.

THE GYMNASIUM, built by the students of the College in 1891, contains an excellent assortment of apparatus. See "Physical Training," p. 53.

COLLEGE RESIDENCES.

HAGERMAN HALL is a substantial stone building, built in 1889, and used as a residence for young men. It is under the supervision of Miss Ella Worden. Besides the students' rooms, which are well lighted and attractive, it contains a dining-room which can accommodate a hundred and fifty persons, as well as the Y. M. C. A. reading-room, where are many daily and weekly papers and magazines. In the upper story is the Weather Bureau office (see p. 82). The dining-room is now used by a young men's boarding club.

MONTGOMERY HALL was erected and furnished in 1891 by the Woman's Educational Society, and presented free of debt to the College. It provides a comfortable and attractive home for the young women of the Academy, and is equipped with all modern appliances for their convenience. The dining-room is now used by a young women's boarding club.

TICKNOR HALL, the generous and beautiful gift of a friend of the College, was opened as the home for the young women of the College in January, 1898. Its comfort and conveniences are the result of careful study of the most perfect of recently-built dormitories for women. Besides students' rooms, it contains the College dining-room, drawing-rooms and guest-rooms, an infirmary capable of complete isolation, and a large study-room, comfortably furnished and provided with reference books, for the use of all the young women of College and Academy.

Members of the Faculty are resident in each of the halls.

All of the foregoing buildings, except the Gymnasium, are of stone. Heat and electric light are furnished to all from a central plant upon the College grounds.

THE PERKINS MEMORIAL.

During the summer there will be completed a very important addition to the equipment of the College. A large stone building is being erected which will be the home of the Conservatory of Music and the Department of Fine Arts. In addition to practice and lecture rooms, it will contain a large auditorium which will be used for religious exercises, concerts, lectures and art exhibitions. This building will be on the College campus, near the Coburn Library, and is to be named for one of the principal donors, the late Willard B. Perkins of Colorado Springs.

LIBRARY.

The beautiful new building in which the Library of the College is housed has been elsewhere described (p. 77).

The number of volumes on the Library shelves amounts to twenty-five thousand, with several thousand pamphlets in addition. The leading literary and scientific journals are regularly received, as are also the United States Government publications and those of the State of Colorado. Of United States documents the library now has a well arranged collection of about four thousand volumes, including the records of Congress complete from 1847 to date, and many valuable records for the period 1774–1837. These documents are arranged on the plan adopted in the library of the Superintendent of United States Documents at Washington, thus making available all the cataloguing required by law to be done there.

The Medical Alcove was originated in 1894 by the generosity of the late Dr. B. F. D. Adams, of Colorado Springs, who presented to the College his extensive medical library. The El Paso Medical Society maintains the efficiency of this department by contributing the transactions of Medical Societies and other standard works purchased out of the funds of the Society for the use of its members. In July, 1896, moreover, the collection of works on medicine was much enriched by the gift of two hundred and fifty volumes and three hundred pamphlets from the late Dr. E. C. Kimball, of Colorado Springs.

With the commencement of the year 1896 a new departure in the Library management was inaugurated. The control of the Library was vested in a board of twenty-five, composed of members of the Faculty and Board of Trustees and of persons not otherwise connected with the College. Simultaneously with the creation of this board, the Library was opened as a circulating library to residents of Colorado Springs and vicinity. In the absence of anything like an adequate public or subscription library in the town, it was thought that the educational advantages afforded by access to the best books in literature, history and science might be extended to all citizens of Colorado Springs without detriment to the interests of the students and teachers of the College. Access to the shelves is permitted, and all the privileges of the Library, including the use of all the current magazines and periodicals taken by the College, are open to public on payment of the same small fee required of College students. The Library is open from 8:30 A. M. until 6 P. M.

The "Coburn Library Book Club," organized in November, 1897, has met with remarkable success. The objects of this club are to provide its members with the best new books published, and to give these books to the Library at the end of twelve months. Its membership fee is $5 a year, and includes the full privileges of the Coburn Library. It has already a membership of over one hundred, and has purchased more than four hundred and fifty books.

The ready response of the people of Colorado Springs to the Librarian's request for back numbers of magazines to complete files has been especially gratifying. The complete list of donors to the Library during the year is too long to be reproduced here.

READING ROOMS.

In connection with the Library is a Reading Room for the use of students and friends of the College, where the current magazines of literature and science, as well as a number of leading newspapers, may be consulted. The young men have also the benefit of a similar room in Hagerman Hall, under the control of the Young Men's Christian Association of the College, while for the young women a study and reading-room is provided at Ticknor Hall.

LABORATORIES AND APPARATUS.

The Laboratories of the College supply the means for thorough and practical training in the scientific branches of the curriculum.

A good telescope of four inches aperture, equatorially mounted on a tripod, was presented to the College in September, 1892, by Henry R. Wolcott, Esq., of Denver. This has since been transferred to the Observatory, built by the generosity of the same donor, and has been placed on a pier and provided with a driving-clock. A new observing chair adds to the convenience with which the instrument is used.

A Meteorological Observing Station is maintained by the College under the direction of Mr. P. E. Doudna, and daily records are made and reported to the United States Weather Bureau. A monthly report is also made to the Health Department of Colorado Springs. The instruments now in the station are dry and wet bulb thermometers, a maximum and a minimum thermometer, a Richards thermograph, a mercurial barometer, a self-registering anemometer, an anemoscope, a rain and snow gauge, and a Draper barograph.

MUSEUM.

Within the past few years the condition of the Museum has been much improved by the increased space rendered available through the transfer of chapel and other public exercises to the Coburn Library, by the enlarged facilities for the display of collections in new exhibition cases, and by various donations and loan collections that have been received. But, with the rapid growth of the College, a part of the exhibition space has had to be given up again to recitations. A building especially planned for the natural sciences is now an urgent necessity.

DONATIONS.

By far the largest and most important contribution that has been made to the Museum during the past three years is a gift from General William J. Palmer and the Colorado Springs Company, who have purchased and donated to the College the large paleontological collection that formerly constituted the private cabinet of Professor Cragin, thus permanently securing to the institution some eight thousand specimens from Colorado, Kansas, Indian Territory, Oklahoma, Texas, and other Western and some Eastern States. The collection contains some mineral and zoological specimens, but is chiefly valuable for the extent and importance of its paleontological material, which includes remains of Pliocene horses and llamas, Miocene rhinoceroses and mastodons, Cretaceous saurians, Tertiary fishes, and a large series of shells, echinoderms, and other invertebrates from the lower Cretaceous, besides many other interesting specimens. This collection is of especial scientific importance, not only as supplying a large part of the geological record not otherwise represented in the Museum, but also as being the elaborated result of years of research and as containing the types of many new species and some new genera of fossils, both invertebrate and vertebrate. Among these type-fossils, the most important is the large plesiosaurian reptile, Trinacromerum, the type of a new genus and species discovered in the Cretaceous rocks of Kansas, described by Professor Cragin in the *American Geologist* in 1888, and now of frequent mention in paleontological literature.

The College feels that it is impossible to express too strongly its appreciation of the value of this gift, or to commend too highly the insight into the need and opportunity of science in the West displayed in this practical recognition of the claims of West-American geology by these generous friends of the College, and especially by General Palmer, who took the initiative by offering to contribute personally half of the cost. The Department of Geology is frequently in receipt of communications from scientific investigators, asking for the temporary use of parts of this collection, and Mr. T. W. Stanton, Paleontologist for Mesozoic Geology in the United States National Museum, has recently visited the College in order to examine the large suite of Lower Cretaceous fossils, in aid of researches which he is conducting for the United States Geological Survey. The College is thus already becoming recognized as a source of information on the great geological and evolutional problems of the West, and its position as a center of such information will become more important in proportion as the foundations of its Museum are strengthened by such gifts and by endowment for museum-building and research.

The Museum is indebted to the well-known mining geologist, Prof. George H. Stone, for a collection of rocks of the Cripple Creek mining district, supplementary to that which he presented last year. Prof. Stone has spared no pains to make a collection representative of the district as a whole, and the suite now possessed by the College is believed to be second to none. The entire suite is now placed on exhibition, and will prove of special help to any who are interested in the great gold camp. It includes rhyolites, trachytes, andesites, phonolites, basalts, diorites, volcanic tuffs, breccias and conglomerates, ores, vein-stuffs, etc.—altogether 140 hand-trimmed specimens.

Of the current year, the most important acquisition is the Educational Series of Rocks, received from the United States Geological Survey. This is a systematic collection of unaltered and metamorphic rocks, including those of mechanical, chemical, organic and igneous origin, together with a few specimens illustrative of special geological processes. It includes 156 numbers and is accompanied by a printed catalogue of the localities from which the specimens were derived. This collection, the J. H. Kerr donation (Ward College collection) of rocks and minerals, the New Hampshire Geological Survey collection, the G. H. Stone collection of Cripple Creek rocks, and a large miscellaneous collection of rocks and minerals, chiefly from Rocky Mountain localities, constitute the museum equipment in inorganic geology.

The most valuable addition to the College Museum during the past year is the collection of fossil Tertiary shells from the Atlantic slope. This collection was donated to the College by Prof. W. B. Clark, State Geologist of Maryland, and Professor of Geology in the Johns Hopkins University.

Four new cases have been purchased during the year and much new material has been placed on exhibition.

The collection made by Tillotson Academy at Trinidad, which became the property of the College upon the union of the former with Cutler Academy, includes some zoological, ethnological, and archaeological, as well as numerous geological specimens.

The College still has the use of the following:

LOAN COLLECTIONS.

Deposited by Mr. A. L. Dickerman—(1) A large collection of wearing apparel, ornaments, weapons, implements, etc., of various tribes of North American Indians; (2) a collection illustrating Alaskan Indian handiwork. Both of these collections contain many rare and unique specimens.

Deposited by Mr. J. C. Devin—(1) A collection of minerals; (2) one of Japanese art; also (3) some miscellaneous specimens. The first of these collections, besides containing some fine minerals, is especially rich in agates, and includes a fine suite of specimens from the famous petrified forest, "Chalcedony Park," on Lithodendron creek, near Holbrook, Arizona. The Japanese collection contains some very valuable articles.

The collections have outgrown the accommodations provided for them, and this to such an extent as emphasizes the pressing necessity for a building in which to utilize them properly. Separate and commodious museum rooms, equipped with suitable exhibition cases, are needed for zoology, geology, ethnology and archaelogy, as well as a number of smaller rooms for laboratory work in geology, paleontology, mineralogy, lithology, zoology, physiology and botany. A building for these and other scientific purposes is vital to the development of the work of the institution.

COLORADO COLLEGE SCIENTIFIC SOCIETY.

The Colorado College Scientific Society holds monthly meetings in the College Chapel. The objects of the society are: "The discussion of recent scientific results, the promotion among its members of scientific inquiry and investigation, and the publication of the more important papers read at the meetings." It was organized in January, 1890, and has already done some excellent work. Seven annual publications, entitled "Colorado College Studies," have been issued, and a considerable number of exchanges have been secured from associations of a like nature, including some foreign societies. The attention which the "Studies" have received from scientific men everywhere encourages the society to continue this publication. The list of articles hitherto published is as follows:

Volume First.

A Rigorous Elementary Proof of the Binomial Theorem.—*F. H. Loud.*

On Certain Cubic Curves.—*F. H. Loud.*

A Study of the Inductive Theories of Bacon, Whewell and Mill. —*Benj. Ives Gilman.*

A Mathematical Text-Book of the Last Century.—*F. Cajori.*

Horace, Od. III, 1, 34.—*George L. Hendrickson.*

Quenti Ciceronis Commentariolum Petitionis XI, §43, (B. et K. Vol. IX, p. 487).—*George L. Hendrickson.*

Volume Second.—

Witchcraft Among the Hindus.—*Dr. H. W. Magoun.*

Protection for Congressional Minorities.—*W. M. Hall.*

Pulsations in the Aortic Arches of the Earthworm.—*Miss M. R. Mann.*

Dialectic Studies in West Virginia.—*Dr. Sylvester Primer.*

The Study of Diophantine Analysis in the United States.—*F. Cajori.*

The Elliptical Functions Defined Independently of the Calculus.—*F. H. Loud.*

On Two Passages in the Crito.—*Dr. H. W. Magoun.*

Calibration of Burettes.—*D. J. Carnegie.*

On a Passage in the Frogs.—*Dr. H. W. Magoun.*

Note on the Hadley-Allen Grammar.—*Dr. H. W. Magoun.*

Historical Note on the Differentiation of a Logarithm.—*F. Cajori.*

A Mathematical Error in the Century Dictionary.—*F. Cajori.*

VOLUME THIRD.

The Etymologies in the Servian Commentary to Vergil.—*Dr. W. P. Mustard.*

Notes on Jefferson's Draft of the Ordinance of 1784.—*W. M. Hall.*

Some Notes on Blaydes' Nubes.—*Dr. A. T. Murray.*

On a Passage in Euripides' Iphigenia Taurica.—*Dr. A. T. Murray.*

Draper's Barograph.—*Florian Cajori.*

The Conditional in German.—*Dr. S. Primer.*

VOLUME FOURTH.

The Circular Locus.—*F. H. Loud.*

On the Eight Lines Usually Prefixed to Horat. Serm. 1, 10.—*Dr. W. P. Mustard.*

State Bank Notes.—*W. M. Hall.*

VOLUME FIFTH.

The Ethical Problem of the Public School System.—*W. F. Slocum.*

The Origin and Use of the Natural Gas at Manitou, Colorado.—*Wm. Strieby.*

Vertebrata from the Neocomian of Kansas.—*F. W. Cragin.*

The Choctaw and Grayson Terranes of the Arietina.—*F. W. Cragin.*

Descriptions of Invertebrate Fossils from the Comanche Series of Texas, Indian Territory and Kansas.—*F. W. Cragin.*

Herpetological Notes from Kansas and Texas.—*F. W. Cragin.*

VOLUME SIXTH.

The Permian System in Kansas.—*F. W. Cragin.*

On the Stratigraphy of the Platte Series, or Upper Cretaceous of the Plains.—*F. W. Cragin.*

Preliminary Notice of Three Late Neocene Terranes of Kansas.—*F. W. Cragin.*

Volume Seventh.

Literature for Children.—*E. S. Parsons.*
Warming Up.—*E. G. Lancaster.*
Equations of Motion of Viscous Liquid (Part I.)—*P. E. Doudna.*

The subjects of papers from October, 1898, to May, 1899, are as follows:

1. Dr. S. J. Barnett, (1) "Some Methods for the Measurement of High Electrical Potentials with Low Potential Instruments." (2) "A Simple and General Method of Obtaining the Virtual Value of an Alternating E. M. F. or Current."

2. Dr. E. G. Lancaster, "Arrested Development."

3. Mr. C. Brookover, "Fish Scales."

4. Prof. H. E. Gordon, "An Examination into the Nature and Condition of Vocal Development in Students."

5. Dr. R. M. Bagg, (1) "Life of James Hall, of New York." (2) "Mimicry in Selenite Crystals."

6. Mr. P. E. Doudna, "On Involution in Modern Geometry."

7. Prof. L. A. E. Ahlers, "The Structure of the Drama."

8. Prof. E. S. Parsons, "Notes on Milton."

9. Dr. R. M. Bagg, "The Geology of Colorado Springs."

10. Dr. F. Cajori, "The Psychology of Number and the Teaching of Arithmetic."

11. Dr. E. G. Lancaster, "Historic Animal Instinct."

Students are encouraged to attend the meetings of the Society.

The secretary of the Society, to whom all correspondence, exchanges, etc., should be addressed, is Professor Florian Cajori.

UNIVERSITY EXTENSION LECTURES.

University Extension work at Colorado College was inaugurated in March, 1894, by the organization of classes in special subjects for the benefit of those not wishing to undertake regular college work.

Extended courses were given in Geology by the late Professor Surls, and in the Duties and Privileges of Citizenship by the late Professor Hall; while popular lectures on philosophical and scientific subjects were delivered by President Slocum and by Professors Cajori, Cragin, and Strieby.

During the succeeding College year, October to December, 1894, the following courses were delivered:

A Study of Four Religions.—*President Slocum.*

Early English Life and Literature.—*Professor E. S. Parsons.*

An Introductory Course in Psychology.—*Miss Noyes.*

Talks on Astronomical Subjects, with Illustrations by the Telescope.—*Professor F. H. Loud.*

In 1895–96, by the courtesy of the School Board, and with the hearty coöperation of Superintendent Pattison and Professor Turnbull, most of the lectures were delivered in the High School Building. They were opened by Professor Parsons' course in Early English Life and Literature, repeated by request. Professor Ahlers gave four lectures, three upon Faust and one upon Modern French Novelists; other popular lectures were delivered by Professors Strieby, Cajori, Langton, Fraser, and Walker. The total number was eighteen.

A year later, with the same friendly coöperation of the public school officials, lectures were again given in the High School Building. They embraced six lectures on German Life and Letters, by Professor L. A. E. Ahlers; six lectures on the Norman Conquest, by Professor E. S. Parsons; and six lectures on Socialism, by Dr. Francis Walker.

In 1897–8, with a view of reaching audiences at greater distances, the work of University Extension was organized on a somewhat larger basis, Dr. E. G. Lancaster taking the general charge. Under this arrangement definite classes of from 20 to 60 were formed by Dr. Lancaster in Pueblo, Colorado Springs and Denver for courses in Psychology, Child Study, and other educational topics; and six public lectures on Adolescence were delivered in All Saints' Church in this city.

Other courses were given on the following subjects: English and German Life and Literature, the History of Physics, Psychology and Pedagogy, Socialism, and Classic Life, by Professors Parsons, Ahlers, Cajori, Lancaster, Walker, and Fraser respectively. Professor Parsons gave a special course of four lectures in this city on the Preparation for the Victorian Era, Tennyson's Idylls, Browning and Modern Realism; and a special course of public lectures on various topics of educational interest was given in the First Congregational Church of Pueblo by seven members of the College Faculty. Other single lectures were given in various parts of the State by President Slocum, Professor Parsons, and Dr. Lancaster. More than a hundred and twenty-five lectures were thus given in the University Extension course of last year.

For the present year a further widening of the work in University Extension was made by adding to the list of lecturers the names of men not connected with the College Faculty, who have become prominent in various fields. The following course of lectures, arranged by Professor Ahlers, is being given:

January 4—Rev. W. H. Fish, Jr.: "The Value and Proper Use of Memory and the Imagination."

January 25—Professor L. A. E. Ahlers: "Cyrano de Bergerac."

February 8—Chancellor Wm. F. McDowell, of the University of Denver: "Some Theories of Education."

February 22—Professor Florian Cajori: "The Dawn of Modern Physics."

March 8—President W. F. Slocum: "Habit as an Educational Force."

March 22—Professor Edward S. Parsons: "Samuel Johnson."

April 12—Chief Justice John Campbell: "On Legal Relations Between American States."

April 26—Governor Alva Adams: "The Duties of the Chief Executive of an American State."

The character of this course indicates the broadening policy of the College in respect to University Extension. This series of lectures is primarily intended to give students an opportunity to hear lectures not directly connected with the College curriculum; and the generous interest which has been accorded the courses given in the past, as well by the public of Colorado Springs as by the students, justifies the College in its plan to make them a permanent institution. When the large auditorium in the projected Conservatory is complete and can be used for stereopticon lectures, the course should be even more attractive than it has proven under existing conditions.

Further courses given this year are as follows:

Four lectures by Prof. E. S. Parsons in the Kinnikinnick at Colorado Springs:

February 4—"Poetry, its Method and Meaning."

February 11—"Popular Poetry as Illustrated in the Ballads."

February 18—"The Romantic Movement in English Poetry."

February 25—"The Influence of the French Revolution in English Poetry."

Three lectures by Prof. L. A. E. Ahlers before the Germania Männerchor of Chicago:

1. Die Faust Idee und ihre Entwickelung bis auf Goethe.
2. Goethe's Faust, Erster Teil.
3. Goethe's Faust, Zweiter Teil.

Three lectures by Prof. L. A. E. Ahlers before the Ladies' German Clubs of Denver:

1. Goethe's Faust, Erster Theil.
2. Gerhart Hauptmann.
3. Hermann Sudermann.

Dr. Lancaster is engaged in giving a course of twenty lectures on "Child Study and Pedagogy" before the Child Study section of the Educational Department of the Woman's Club of Denver. These lectures will occupy the entire year. A similar course (ten lectures) was given before the South Side Woman's Club of Denver and lectures have also been given before the Epworth League, the public schools in Fort Morgan, the Psychological Department of the State Normal School, in Greeley; and also in Rocky Ford, Del Norte, Cripple Creek, and Leadville. Further courses are planned.

RELIGIOUS LIFE.

As was stated in the introduction to the Bulletin, it has been the aim of the College authorities, from the outset, to build up in Colorado Springs a distinctively Christian College; one which, while maintaining the best standards of intellectual work, will recognize Christian character as the highest possible attainment and the religious spirit as the most potent inspirer of mind and soul alike. This result has been sought in no sectarian spirit. No student is ever influenced in any way, even the slightest, toward any particular denomination. When students come to the College, inquiry is at once made as to their denominational affiliations and what churches in the city they desire to attend; and lists are sent to the pastors of these churches with the request that they seek the students out and bring at once about them the influence of the church home. The students are received into the city churches, and in a very short time are found taking active part in their religious work.

Various services at the College voice and shape the religious spirit. While there are no regular church exercises on Sunday, the custom has grown up during the last year to hold a service, chiefly of music and prayer with a brief address, immediately after the supper hour, in the study room of Ticknor Hall. This is well attended and has proved very helpful.

Five days in the week, at 9:15 in the morning, all the students gather with the Faculty, and such friends from outside as may wish to attend, in the chapel for morning prayers. The service is not long, but is impressive, with a hymn, responsive reading, chant and prayer, followed by the Lord's Prayer and benediction. Once a week the service is shortened for the President's ethical talk, in which he discusses questions bearing on the student life, taking up such subjects as truthfulness, courtesy, large-mindedness, pure-mindedness, reverence. These talks have had a marked influence upon the standards and tone of the College life.

Once a year the students and Faculty unite in the exercises of the Day of Prayer for Colleges, all usual college exercises being suspended for the day. A prayer meeting is held at an early morning hour, then follows at 11 o'clock the public service in the chapel, with an address by some speaker from outside the College. During the day, classes often hold meetings by themselves, and in the evening all unite again in a prayer and conference meeting. A deep earnestness always pervades the exercises of the day.

The religious organizations, under the control of the students themselves, are very flourishing. The Young Women's Christian Association has a membership of fifty, and holds a Sunday afternoon meeting. The second meeting of each month is a union missionary meeting with the Young Men's Christian Association. Two classes for the study of the Bible have held regular sessions during the year. Many of the young women are working under the direction of the Society in mission and sewing schools and other charitable work. Clothes and food have been provided by them for a number of poor families. A specific work undertaken by the Society is the support of a missionary in China. In addition to this work, the young women give effectual aid to the young men in their various lines of Christian activity. One young woman was sent last summer to Lake Geneva, Wis., and one to Northfield, Mass., as delegates to the Y. W. C. A. conferences.

The Young Men's Christian Association holds a Sunday afternoon meeting. It helps the life of Hagerman Hall by supplying the reading room with current periodicals and by conducting prayers every evening after supper. It has organized two classes for Bible study and two for the systematic study of missions. Young women share in the latter classes. Besides this purely local activity, and the assistance the young men give the churches of which they are members, they are carrying on a vigorous work in several fields. The young men also support, by a yearly contribution of $40, a native worker in India. One delegate was sent last summer to Lake Geneva, Wis.

At the beginning of the College year members of the Associations meet all trains and welcome new students.

The Student Volunteer movement has entered the College, and is represented by an earnest band of eight, four of whom are young women. Its members, who are pledged to go to the foreign field if God opens the way, endeavor by every means to bring before the students and the various young people's societies in the city and its vicinity the importance of missionary work. Two delegates were sent to the International Convention of Student Volunteers, held at Cleveland in February, 1898, the expense being borne by the Christian Associations.

ALUMNI ASSOCIATION.

The Alumni Association of Colorado College is becoming one of the important features of the College. Its membership consists of those students who have attended the College long enough to have an interest in its welfare, and who desire to keep up the acquaintance of graduates and former students.

The Association holds its meetings every year during Commencement Week, generally having a banquet following the business meeting. At this meeting questions of interest to the College and the Association are discussed.

The most prominent line of work at present is the raising of a Scholarship Fund.

OFFICERS.

Frederic Hastings, - - - - President.
C. R. Arnold, - - - - - 1st Vice-President.
A. E. Holt, - - - - - - 2d Vice-President.
R. D. McLeod, - - - - 3d Vice-President.
G. H. De La Vergne, - - - - 4th Vice-President.
Phillip Gillette, - - - - 5th Vice-President.
Elizabeth Rowell, - - - - Secretary.
O. H. Shoup, - - - - . Treasurer.

LITERARY SOCIETIES AND ORATORICAL CONTESTS.

The three Literary Societies of the College and that of the Academy furnish opportunity for independent work and drill in public debate and parliamentary practice. A hall, handsomely furnished by the students themselves, is occupied by the College societies.

The Apollonian Club and the Pearsons Literary Society hold an annual contest in debate for a prize of sixty dollars. The prize at the last contest was won by the representatives of the Pearsons Literary Society, Messrs. W. R. Armstrong, '99, E. E. Cooley, 1900, and B. M. Rastall, '01.

An Oratorical Contest is held each year, as mentioned on page 53, and is open to all members of the College. The winner receives a prize of twenty-five dollars. The winner of the contest for 1898 was Mr. W. C. Browning, 1900.

STUDENTS' PUBLICATION.

The *Colorado Collegian*, a fortnightly paper, is issued by a self-perpetuating editorial board elected from the College classes with two correspondents from the Academy.

GLEE CLUBS.

The College Glee Club, under the direction of Mr. Clarence W. Bowers of the Faculty of Music, gave a highly successful series of concerts during the Christmas holidays, and will give another series during the Easter vacation. The cities visited and to be visited are as follows: Cañon City, Salida, Montrose, Gunnison, Grand Junction, Leadville, Aspen, Buena Vista, Pueblo, Greeley, Longmont, Ft. Collins, Golden and Cheyenne.

During the present year a Glee and Mandolin Club has been organized among the young women of the institution, under the direction of Miss Marguerite Lamb of the College Faculty. The Club has already given a very successful concert and arrangements are being made to give another during Commencement week.

SPECIAL STUDENTS.

Special students will be received, at the discretion of the Faculty, into such classes as they are qualified to enter. It is the rule of the College that such students must attend the examinations as well as the ordinary recitations of their classes, subject to the same conditions as other students.

Several of the courses of lectures which form part of the College instruction, particularly in the department of Philosophy, are open to the public on payment of a small fee, and, of course, without any requirement of examination.

EXPENSES.

Tuition, by the year	$35 00
Matriculation fee	5 00
Library fee	3 00
Table board in Montgomery Hall,* a week	2 50

---

* At the young women's boarding club.

Table board in Hagerman Hall (club for young men), a week.	$2 50
Table board in Ticknor Hall,† a week	4 00
Rooms,‡ warmed, furnished and lighted, a half-year, $20.00§ to	40 00

COLLEGE BILLS.

The bills for tuition and room rent are issued at the beginning of each half-year, and are payable immediately, unless special arrangements are made in the proper offices.

Students who withdraw before the end of the term pay full tuition. Students who withdraw less than four weeks before the end of the term, pay full room rent. Board bills are payable monthly in advance.

PECUNIARY ASSISTANCE.

SCHOLARSHIPS.—The income of the following scholarships is devoted to the aid of worthy students who may need assistance in completing their course, and who, by their scholarship and character, prove themselves worthy of such assistance.

The Thomas Davee Scholarship of $500, established by the late Mrs. T. V. D. Mitchell, of West Minot, Maine.

The Rice Scholarship of $700, established by friends of the Rev. Chas. B. Rice, D. D., of Danvers, Mass.

The Currier Scholarship of $1,000, founded by the late Hon. Warren Currier, of St. Louis, Mo.

The Edwards Scholarship of $500, given by the Congregational Church of Wellesley Hill, Mass.

The Mary Caroline Quincy Scholarship of $500, given by the late Mr. George Henry Quincy, of Boston, Mass.

The Lawrence Myers Scholarship of $1,000, and the Lucy Platt Myers Scholarship of $1,000, given by Mrs. Laetitia M. Myers, of Plainfield, New Jersey.

---

† Ticknor Hall is a residence for young women, but any person connected with the College may secure table board there.

‡ Students rooming in Hagerman, Montgomery or Ticknor Hall are required to furnish towels, bed linen and blankets.

§ The number of $20.00 rooms is limited. Others may be had at $25.00, $30.00, $35.00, $40.00. Application should be made early.

The Fay Scholarship of $1,000, founded by the late Eliza A. Fay, of Boston, Mass.

A Scholarship of $1,000, given by Mr. William F. Richards, of Newport, N. H., through the Woman's Educational Society of Colorado College.

The Willard B. Perkins Scholarship of $7,000. The second Willard B. Perkins Scholarship of $7,000. These two scholarships were given by the late Willard B. Perkins, of Colorado Springs.

Several other scholarships are supported by annual subscription.

SELF-SUPPORT.—Good scholars have opportunities for private teaching. Capable and faithful young men can find work in town, and there are many sources from which young women may derive an income while continuing their studies. Some students have paid all their expenses by current earnings.

THE WOMAN'S EDUCATIONAL SOCIETY OF COLORADO COLLEGE.

This Society was formed in April, 1889, by the women of Colorado Springs. Its purpose, as expressed in its constitution, is "to give physical, intellectual and spiritual aid to students in any department of Colorado College." This Society built Montgomery Hall, furnished Ticknor Hall, and has been of service in many ways to the College. The members of the Society endeavor to come into personal relations with the students, especially with those who are supporting themselves; they try to find work for them, and by friendly advice assist them in their efforts to secure an education. The membership fees of the Society go to form a beneficiary fund, from which loans are made on the following conditions:

First—Loans may be made to students who have been in the College for one term and are recommended by the Faculty as in every way deserving of such aid.

Second—No student shall be allowed to incur an indebtedness to the Society of more than $300.

Third—Students may receive loans without interest until their connection with the College ceases; after that time their notes shall draw interest at four per cent.

The officers of the Society for the current year are:

President—Mrs. William F. Slocum.
First Vice President—Mrs. Franklin E. Brooks.
Recording Secretary—Mrs. Charles E. Noble.
Corresponding Secretary—Mrs. William Strieby.
Treasurer—Mrs. Florian Cajori.

THE NEEDS OF THE COLLEGE.

Colorado College, never more truly than to-day, has great and pressing needs. Since the completion of the endowment fund of two hundred thousand dollars, the College stands upon a firm financial basis; but greater facilities in the way of equipment are an immediate necessity. The attention of the public was not called to these considerations while the permanent financial status of the College was in any degree uncertain; but now that this has been made secure, the Trustees and Faculty feel it imperative that the opportunity for service which lies before the College, and the conditions by which this opportunity can be embraced, be understood. The urgent demands of the hour should be realized, not only by those who in previous years have nobly aided the College, but by all persons who are interested in the cause of learning, in the progress of science, and in the growth and development of the best educational institutions as a safeguard for republican government. Among the needs which force themselves upon attention are the following:

INCREASED ENDOWMENT FUNDS.

Endowment of Professorships.—It is greatly to be desired that the chairs in the various departments be permanently endowed. This need has come to be urgent by reason of the rapid growth in numbers and the consequent demands for instruction and for more complete courses.

Funds for the Library.—The permanent fund for purchasing books is too small, and both the regular work of the College and the value of the Library to the city are seriously hampered by this limitation. The College appeals earnestly to lovers of books for money to be used for this purpose, either to be added to the permanent fund, or to be immediately expended for the pressing demands of the present moment.

Special Funds for Scientific Research.—Money to be devoted to scientific work in special lines is very greatly needed. The opportunities of Colorado College in this direction are unusual, because of the geographical, meteorological and geological situation. The attention of those interested in the advancement of science is earnestly called to this fact and to the statements in the article, "Museum," pp. 83–86.

Physical Apparatus.—The Physical Laboratory is equipped with some very good apparatus, but a great deal more is needed for effective work in advanced classes and for the purpose of original investigation. With a few thousand dollars our facilities could be immensely enlarged.

Astronomical Instruments.—The Observatory needs a transit-instrument, an astronomical clock, star-charts and several small pieces of apparatus for use in conjunction with the equatorial telescope. In the latter direction gifts of very moderate amounts would be immediately useful.

NECESSARY BUILDINGS.

A Science Building.—The present accommodations afforded the Departments of Chemistry, Physics, Biology, and Geology are painfully inadequate. The laboratories are so crowded that the work now done is accomplished under difficulty, while greatly desired extensions are prevented. The need of increased space for collections has elsewhere been noticed. A large building for all purposes of natural science was, even last year, very seriously needed; but this year the demand is still greater. It is to be hoped that some lover of science will soon give to Colorado College this much-needed building.

Residence Hall for Young Men.—The generous donor of Ticknor Hall has supplied the need, which was most pressing, of a home for the young women of the College, but it is of great importance that a similar benefaction should soon be extended to the young men, as Hagerman Hall is no longer sufficient for their needs.

SCHOLARSHIP FUNDS.

The Trustees desire to emphasize the fact that many young people in a new country are obliged to earn their education by hard and self-denying work. Colorado College needs a large addition to her scholarship funds. Money thus applied tends directly to the profit of the individual and of the country.

FORMS OF BEQUEST.

Those who intend to devise property to Colorado College, or to the Woman's Educational Society, are requested to employ one of the following Forms of Bequest:

"I hereby give, devise and bequeath unto The Colorado College, of Colorado Springs, Colorado, the sum of............Dollars."

"I hereby give, devise and bequeath unto The Woman's Educational Society of Colorado College, of Colorado Springs, Colorado, the sum of............Dollars."

If property other than money is willed, the form should be correspondingly varied.

TWENTY-SIXTH

ANNUAL BULLETIN

OF

COLORADO COLLEGE

AND

CUTLER ACADEMY

COLORADO SPRINGS
COLORADO

1900

COLORADO SPRINGS
(The Out West Printing and Stationery Co.)
1900

CONTENTS.

PAGE
Announcement, 5
Trustees, Standing Committees, 8
College Officers, 9
Board of Control of the N. P. Coburn Library, 9
Faculty, 10
Standing Committees of the Faculty, 14
Class Officers, 14
Calendar, 15
Requirements for Admission, 16
Accredited Schools, 20
Entrance Examinations, 20
Admission to Courses, 21

OUTLINE OF COURSES—

Bachelor of Arts, 22
Bachelor of Philosophy, 22
Bachelor of Science, 22
Electives, 25

DEPARTMENTS OF INSTRUCTION—

Philosophy, 28
Pedagogy, 31
Greek, 31
Latin, 32
English, 33
Modern Languages—German, French, Spanish, Italian, 34
Mathematics, 37
Astronomy, 38
Physics, 38
Chemistry, 39
Biology, 41
Geology, 42
Economics, 44
Political Science, 45
History, 46
Bible Study, 47
Oratory, 47
Physical Training, 48
Schedule of Recitations, 50
Honors and Prizes, 52

THE CUTLER ACADEMY—

Faculty, 53
Statement, 54
Requirements for Admission, 55
Courses of Instruction, 56
Honors, 59
Appendix (Supplementary Readings in English, etc.), 60

P854

CONSERVATORY OF MUSIC—

Faculty, 61
Purpose and Scope, 62
Relation to Colorado College, 63
Courses of Study, 64
Free Advantages, 67
Special Advantages, 67
Expenses,—Tuition, Rooms, Board, etc., 68

DEPARTMENT OF ART AND DESIGN, 69

CIRCULAR OF INFORMATION—

Location, 71
College Buildings, 72
Library, 75
Reading Rooms, 77
Laboratories and Apparatus, 77
Museum, 78
Scientific Society, 80
University Extension Lectures, 83
Religious Life, 84
Alumni Association, 86
Student Publications, 86
Literary Societies and Oratorical Contests, 86
Glee Clubs, 87
Special Students, 87
Expenses, 88
College Bills, 88
Pecuniary Assistance, 88
Woman's Educational Society, 90
Needs of the College, 91
Forms of Bequest, 93

ANNOUNCEMENT.

Colorado College is the oldest institution of higher education in the State. In 1874, while Colorado was yet a territory, a College upon a broad Christian foundation was established in Colorado Springs. The authorized announcement for that year contains the following words:

"It is the purpose of the Trustees to build a College in which liberal studies may be pursued under positive Christian influences. . . . The College is under no ecclesiastical or political control. Members of different churches are on its Board of Trustees. . . . The character which is most desired for this College is that of thorough scholarship and fervent piety, each assisting the other, and neither ever offered as a compensation for the defects of the other."

From the beginning the Board of Trustees has been composed of leading professional and business men of Colorado, together with a few Eastern men of similar standing, and has ever been animated by the purpose avowed by the original Board.

A grant of land had been made in advance of the organization of the College, in 1873, by the Fountain Company, the founders of the city of Colorado Springs. The Rev. Jonathan Edwards was the first professor and executive officer. The first President, the Rev. James G. Dougherty, was elected in 1875, and was succeeded in the following year by the Rev. E. P. Tenney. From 1885 to 1888 there was no President, but the work of teaching was carried on without interruption. At this time there was only one building on the campus, Palmer Hall, erected in 1880.

In the autumn of 1888, William Frederick Slocum was elected President. The faculty was at once enlarged, the courses reorganized, and Cutler Academy incorporated as an associated preparatory school, in which students have since been trained, not only for Colorado College, but for all the leading institutions of the United States. Within the following two years a hundred thousand dollars was given toward endowment, entirely from within the State of Colorado. Hagerman Hall was built in 1889. In the same year the Woman's Educational Society was organized, and began the work of building Montgomery Hall. In 1890 the Colorado College Scientific Society was founded, and the first installment of its annual publication, Colorado College Studies, issued.

Within the current decade, the sum of two hundred thousand dollars has been added to the endowment, and the growth of the College in numbers — a growth uninterrupted by the general financial depression — has been matched by an appropriate enlargement of equipment and activity. Among the marks of advance are the gymnasium, built by the efforts of students; the costly Library building, given by the late N. P. Coburn; the Observatory, the gift of Henry R. Wolcott, of Denver; and Ticknor Hall, completed during the closing days of 1897, as a second dwelling house for young women. The entire cost of this beautiful building, exceeding $23,000, was met by a single donor, who has insisted upon remaining unknown. This year another large stone building, costing $30,000, has been completed. It has been named in honor of a generous donor, the late Willard B. Perkins, "The Perkins Fine Arts Hall." The first floor is an auditorium, used for the religious services of the College and other public meetings. This room contains a valuable pipe-organ, the gift of Miss Elizabeth Cheney, of Wellesley, Massachusetts, in memory of her brother, Mr. Charles P. Cheney, who died at Colorado Springs in 1897. The second story of this building is occupied by the Department of Fine Arts and the Conservatory of Music.

A year ago a generous friend of the College offered to contribute $50,000 to endow a Science and Administration building, provided that before April 1, 1900, the sum of $60,000 could be secured for the erection of the building itself. The necessary sum was pledged several days before the date mentioned, and work has already begun upon plans for the new building. It will be located at the northwest corner of the main campus, and will be built to harmonize with the general scheme of buildings sketched several years ago by the architects of the Coburn Library and the Perkins Fine Arts Hall. It will contain the general offices of administration and a complete equipment for scientific lectures and laboratory work in all departments. No efforts will be spared to make it as perfect as possible. It will be ready for use by the opening of the fall term in 1901.

Growth in other directions during the last five years is indicated by the establishment of a course leading to the degree of Bachelor of Science, by the University Extension work, by the addition of an Art Department and by the founding of the Conservatory of Music, which, while preserving its proper relation to the academical departments, successfully maintains an equally high educational standard. While not without needs that are keenly felt, the College has won an assured position, and offers to its students educational facilities of the same grade as are found at Eastern institutions of the higher learning.

TRUSTEES OF THE COLLEGE.

William F. Slocum, *Pres't of the Board*,	Colorado Springs.
George W. Bailey,	Denver.
Rev. David N. Beach, D. D.,	Denver.
William P. Bonbright,	Colorado Springs.
Rev. W. H. W. Boyle, D. D.,	Colorado Springs.
John Campbell,	Denver.
Rev. James B. Gregg, D. D.,	Colorado Springs.
J. J. Hagerman,	Colorado Springs.
Thomas S. Hayden,	Denver.
Irving Howbert,	Colorado Springs.
William S. Jackson,	Colorado Springs.
Horace G. Lunt,	Colorado Springs.
F. L. Martin,	Colorado Springs.
William J. Palmer,	Colorado Springs.
George Foster Peabody,	New York.
M. D. Thatcher,	Pueblo.
Frank Trumbull,	Denver.

STANDING COMMITTEES OF THE TRUSTEES.

EXECUTIVE.

M. D. Thatcher, *Chairman;* James B. Gregg, *Secretary;* William S. Jackson, William J. Palmer.

FINANCE.

William S. Jackson, *Chairman;* William P. Bonbright, Irving Howbert, William J. Palmer, Frank Trumbull.

INSTRUCTION.

James B. Gregg, *Chairman;* George W. Bailey, David N. Beach, W. H. W. Boyle, John Campbell, Horace G. Lunt.

GROUNDS AND BUILDINGS.

William P. Bonbright, *Chairman;* Thomas S. Hayden, F. L. Martin, William J. Palmer.

(The President of the College is *ex officio* a member of all committees.)

COLLEGE OFFICERS.

William F. Slocum, *President*. James B. Gregg, *Secretary*.
George N. Marden, *Treasurer*.

BOARD OF CONTROL OF THE N. P. COBURN LIBRARY.

Chairman—William F. Slocum.
Secretary—Miss Frances S. Wiggin.

Miss A. R. Bell.
Rev. W. H. W. Boyle, D. D.
Rev. E. Braislin, D. D.
Rev. Benjamin Brewster.
Miss Ellen T. Brinley.
Prof. Florian Cajori.
Mr. Louis R. Ehrich.
Rev. W. H. Fish, Jr.
Prof. M. C. Gile.
Mrs. E. C. Goddard.
Mr. Rubin Goldmark.
Rev. Jas. B. Gregg, D. D.
Mrs. J. J. Hagerman.
Mr. C. W. Haines.
Mr. H. C. Hall.
Mr. S. F. Hamp.
Judge H. G. Lunt.
Mr. H. F. Ordway.
Prof. E. S. Parsons.
Mr. J. G. Shields.
Mr. Leslie J. Skelton.
Mrs. W. F. Slocum.
Dr. S. E. Solly.
Mrs. A. E. Touzalin.
Prof. Francis Walker.

FACULTY.

WILLIAM FREDERICK SLOCUM, B. D., LL. D. 24 College Place.

President and Head Professor of Philosophy.

A. B. (Amherst), '74; B. D. (Andover), '78; LL. D. (Amherst), '93; LL. D. (University of Nebraska), '94; Colorado College, '88.

LOUIS A. E. AHLERS, A. B. 911 North Nevada Ave.

Head Professor of Modern Languages and Literatures.

A. B. (Harvard), '94; Colorado College, '95.

SAMUEL JACKSON BARNETT, A. B., PH. D. 611 North Tejon St.

Professor of Physics.

A. B. (University of Denver), '94; Ph. D. (Cornell University), '98; Colorado College, '98.

ELIZABETH BARROWS, Montgomery Hall.

Instructor in Gymnastics.

Graduate of the Anderson Normal School, New Haven, '94; Colorado College, '99.

MAUDE BEMIS, 506 North Cascade Ave.

Instructor in Drawing.

Student under Raphael Collin, Paris, '94–'96; Colorado College, '98.

ERNEST BREHAUT, A. M. Hagerman Hall.

Instructor in Latin.

A. B. (Dalhousie), '94; A. B. (Harvard), '96; A. M. (*ibid.*), '97; Colorado College, '98.

CHARLES BROOKOVER, M. S. 416 East Yampa St.

Assistant Professor of Biology.

A. B. (National Normal University), '90; B. Ped. (Ohio University), '94; M. S. (*ibid.*), '97; Instructor in Biology, Ohio University, '97–'98; Colorado College, '98.

FLORIAN CAJORI, M. S., PH. D. 1119 Wood Ave.

Head Professor of Mathematics.

S. B. (University of Wisconsin), '83; M. S. (*ibid.*), '86; PH. D. (Tulane University), '94; Assistant Professor of Mathematics, Tulane University, '85–'87; Professor of Applied Mathematics, Tulane University, '87–'88; United States Bureau of Education, '88–'89; Colorado College, '89.

JOHN DAVENPORT CLARKE, PH. B. 26 Boulder Crescent.

Instructor in Oratory.

PH. B. (Lafayette), '98; Colorado College, '99.

ANNA PEARL COOPER, A. B. 17 North Wahsatch Ave.

Instructor in English.

A. B. (Colorado College), '96; Colorado College, '99.

NATHAN BROWN COY, A. B. 512 North Weber St.

Associate Professor of the Classical Languages and Literatures and Principal of the Cutler Academy.

A. B. (Yale), '70; Professor of Latin, Phillips Academy, Andover, Mass., '75-'76; Department of Classics, Denver High School, '81-'86; State Superintendent of Public Instruction, Colorado, '91-'93; Colorado College, '97.

FRANCIS WHITTEMORE CRAGIN, S. B., PH. D. 1715 Wood Ave

Professor of Geology, Mineralogy and Palæontology.

Agassiz Laboratory, Newport, '81; S. B. (Harvard), '82; PH. D. (Johns Hopkins University), '99; Professor of Natural History, Washburn College, '82-'91; Assistant Geologist, State Geological Survey of Texas, '92-'93; Colorado College, '91.

P. E. DOUDNA,* A. M.

Assistant Professor of Mathematics.

A. B. (University of Wisconsin), '94; A. M. (*ibid.*), '97; Colorado College, '96.

M. CLEMENT GILE, A. M. 1121 North Tejon St.

Head Professor of Classical Languages and Literatures.

A. B. (Brown University), '83; A. M. (Brown University), '86; Instructor in Phillips Academy, Andover, Mass., '83-'92; Assistant Professor of Greek, University of Chicago, '92-'94; Colorado College, '92.

RUBIN GOLDMARK, A. M. 1121 Wood Ave.

Director of the Conservatory of Music, and Professor of Harmony, Counterpoint and Composition.

Conservatory of Music, Vienna, '89-'91; Pupil of Rafael Joseffy and Anton Dvorak, '91; A. M. (Colorado College), '99; Instructor National Conservatory of Music, New York, '91-'93; Colorado College, '95.

HENRY EVARTS GORDON, A. B. 922 North Weber St.

Professor of Rhetoric and Oratory.

A. B. (Amherst), '79; Principal Tillotson Academy, Trinidad, Colo., '80-'96; Colorado College, '96.

FREDERIC R. HASTINGS, A. M. 13½ South Tejon St.

Lecturer on the History of Philosophy.

Worcester (Mass.) Polytechnic Institute, '83-'85; PH. B. (Colorado College), '91; A. M. (*ibid.*), '92.

ADDIE DELL HEIZER, A. B. 1430 Wood Ave.

Instructor in Latin and English.

A. B. (Colorado College), '99; Colorado College, '99.

ELLSWORTH GAGE LANCASTER, A.M., PH.D. 929 N. Nevada.

Assistant Professor of Philosophy and Pedagogy.

A. B. (Amherst), '85; A. M. (*ibid.*), '88; B. D. (Andover), '89; PH. D. (Clark University), '97; Colorado College, '97.

---

* Deceased.

RUTH LOOMIS, A. B. Ticknor Hall.

Dean of Women.

A. B. (Vassar), '85; Instructor in English, Vassar, '86-'95; Colorado College, '96.

FRANK HERBERT LOUD, A. B. 1203 North Tejon St.

Professor of Mathematics and Astronomy.

A. B. (Amherst), '73; Walker Instructor in Mathematics, Amherst, '73-'76; Instructor in Geometry, Smith College, '79; Colorado College, '77.

HANNAH TAYLOR MUIR, M. D. 611 North Tejon St.

Instructor in Hygiene and Medical Adviser.

M. D. (University of Colorado), '93; Clinical Obstetrician, University of Colorado, '93-'95; Assistant County Physician, Arapahoe County Colo., '93-94; Post Graduate School of Medicine and Polyclinic, New York, '95; Allgemein Polyclinic, Vienna. '96; Colorado College, '95.

ATHERTON NOYES, A. B. 815 North Tejon St.

Assistant Professor of English and Greek, and Dean of the Faculty.

A. B. (Yale), '85; Colorado College, '92.

EDWARD S. PARSONS, A. M., B. D. 1328 North Nevada Ave.

Vice-President and Bemis Head Professor of English.

A. B. (Amherst), '83; A. M. (*ibid.*), '86; B. D. (Yale), '87; Colorado College, '92.

SIDNEY F. PATTISON, A. B. 611 North Tejon St.

Instructor in History and English.

A. B. (Rochester), '98; A. B. (Williams), '99; Colorado College, '99.

HUGH ALLISON SMITH, A. M. 415 East San Rafael St.

Assistant Professor of Modern Languages.

A. B. (University of Missouri), '97; A. M. (*ibid.*), '98; Assistant in the Department of Romance Languages, University of Missouri, '97-'98; Colorado College, '99.

LOUIS JEANNERET SOUTTER. 222 North Cascade Ave.

Director of the Department of Art and Design.

Graduate, University of Lausanne, '90; Student, Royal Conservatory of Music, Brussels, under Eugéne Ysaye, '92-'95; Student, Ecole des Beaux Arts and Colarossi Atelier, Paris, '95-'98; Pupil of Benjamin Constant and Jean Paul Laurent, '99; Colorado College, '98.

WILLIAM STRIEBY, A. M., E. M. 805 North Cascade Ave.

Professor of Chemistry and Metallurgy.

A. B. (University of New York), '75; E. M. (Columbia University School of Mines), '78; A. M. (University of New York), '79; Principal Santa Fé Academy, Santa Fé, N. M., '78-'80; Colorado College, '80.

FRANCIS WALKER, S. B., A. M., PH. D. 815 North Tejon St.

Professor of Political and Social Science.

S. B. (Massachusetts Institute of Technology), '92; A. M. (Columbia University), '93; PH. D. (Columbia University), '95; Colorado College, '95.

FRANCES SEDGWICK WIGGIN. Ticknor Hall.

Librarian.

B. L. (University of Wisconsin), '82; Colorado College, '98.

FACULTY OF MUSIC.

RUBIN GOLDMARK, Director. 1121 Wood Ave.

CLARENCE WILBER BOWERS. 410 East Yampa St.

Instructor in Piano-forte and Organ.

Graduate New England Conservatory of Music, Boston; Pupil of G. W. Chadwick and Ferruccio Busoni, '90-'92; Pupil of Alexandre Guilmant, Paris, '95-'96; Organist and Instructor in Music in Seminary and Academy, Andover, Mass., '91-'92; Professor of Instrumental Music and Harmony, Cornell College, Mt. Vernon, Iowa, '92-'95; Colorado College, '96.

GEORGE CRAMPTON. 1369 South 14th St., Denver.

Instructor in Voice Culture and Sight Reading.

Royal College of Music, London, '94; Pupil of Sir C. Hubert Parry, Dr. C. V. Stanford, Sir Walter Parrutt, and Henry Blower; Colorado College, '99.

CHARLES DOPF. 325 North Tejon St.

Instructor in Violin.

Member of Damrosch Symphony Orchestra, N. Y., '89-'96; Colorado College, '96.

OMA FIELDS. 808 North Weber St.

Instructor in Piano-forte.

New England Conservatory of Music (graduate), '89; Pupil of Leschetitzky, Vienna, '96; Colorado College, '94.

RICHARD FRANZ SCHUBERT. 314 West Cucharras St.

Instructor in Violoncello.

Pupil of Grutzmacker, Dresden, '74-'77; Member of Thomas' Orchestra, New York, '81-'82; Colorado College, '97.

LECTURERS BEFORE THE SENIOR AND JUNIOR CLASSES.

J. T. ESKRIDGE, M. D. Denver.

States of Disturbed Consciousness.

LEONARD FREEMAN, M. D. Denver.

Anatomy of the Brain; Microscopic Analysis of Nervous Tissue.

THE REV. JAMES B. GREGG, D. D. 731 North Cascade Ave.

The Ethical Teaching of the Old Testament.

STANDING COMMITTEES OF THE FACULTY.

ACCREDITED SCHOOLS.

Prof. Coy, *Chairman;* Prof. Gile, Prof. Brookover.

ART.

Mr. Soutter, *Chairman;* Prof. Noyes, Miss Loomis.

ATHLETICS.

Prof. Ahlers, *Chairman;* Prof. Walker, Prof. Cajori.

COURSES OF STUDY OF INDIVIDUAL STUDENTS.

COLLEGE—Prof. Parsons, *Chairman;* Prof. Gile, Prof. Noyes.
ACADEMY—Prof. Parsons, *Chairman;* Prof. Gile, Prof. Coy.

DISCIPLINE.

The President, *Chairman;* Profs. Parsons, Cajori, Coy, Gile.

MUSIC.

Prof. Goldmark, *Chairman;* Miss Loomis, Prof. Parsons.

POST-GRADUATE DEGREES.

Prof. Lancaster, *Chairman;* Prof. Walker, Mr. Brehaut.

SCHEDULE AND PUBLICATIONS.

Prof. Cajori, *Chairman;* Prof. Barnett, Prof. Smith.

SCHOLARSHIPS.

The President, *Chairman;* Prof. Parsons, Prof. Gile.

STUDENTS' SELF-HELP.

Prof. Lancaster, *Chairman;* Prof. Strieby, Prof. Ahlers.

CLASS OFFICERS.

COLLEGE.	ACADEMY.
Seniors—The President.	IV—Prof. Gile.
Juniors—Prof. Lancaster.	III—Prof. Strieby.
Sophomores—Prof. Ahlers.	II—Mr. Pattison.
Freshmen—Prof. Parsons.	I—Prof. Coy.
Special Students—Prof. Cajori.	*Special Students*—Prof. Walker.

CALENDAR.

1900.

May	30	Wednesday	Memorial Day; a holiday.
June	4	Monday	Second Semi-annual Examinations begin. First Entrance Examinations begin.
June	10	Sunday	Baccalaureate Sermon.
June	11	Monday	Cutler Academy Graduation Exercises.
June	12	Tuesday	College Oratorical Contest.
June	13	Wednesday	Commencement Exercises.
Sept.	11	Tuesday	Second Entrance Examinations begin.
Sept.	12	Wednesday	First Half-year begins at 8:30 A. M.
Nov.	14	Wednesday	Insignia Day.
Nov.	28	Wednesday	Thanksgiving Recess begins at 1 P. M.
Dec.	3	Monday	Thanksgiving Recess ends at 8:30 A. M.
Dec.	20	Thursday	Christmas Recess begins at 1 P. M.

1901.

Jan.	3	Thursday	Christmas Recess ends at 8:30 A. M.
Jan.	31	Thursday	Day of Prayer for Colleges.
Feb.	4	Monday	Second Half-year begins at 8:30 A. M.
Feb.	22	Friday	Washington's Birthday; a holiday.
April	3	Wednesday	Easter Recess begins at 1 P. M.
April	11	Thursday	Easter recess ends at 8:30 A. M.
May	30	Thursday	Memorial Day; a holiday.
June	3	Monday	Examinations begin. First Entrance Examinations begin.
June	9	Sunday	Baccalaureate Sermon.
June	10	Monday	College Oratorical Contest.
June	11	Tuesday	Cutler Academy Graduation Exercises.
June	12	Wednesday	Commencement Exercises.
Sept.	17	Tuesday	Second Entrance Examinations begin.

REQUIREMENTS FOR ADMISSION
TO THE
FRESHMAN CLASS.

For the Course Leading to the Degree of Bachelor of Arts.

Admission by Examination.

1. In Greek.—(*a.*) A thorough knowledge of inflection, with the use of the accents, and the ordinary grammatical constructions. (*b.*) Four books of the Anabasis. (*c.*) Three books of the Iliad, with prosody and dialectic forms. (*d.*) Translation at sight of average passages from Xenophon and Homer. (*e.*) The translation into Greek of a passage of connected discourse of moderate difficulty. (Collar and Daniell's Greek Prose Composition, or the first forty-four exercises in Allinson's, will indicate the nature of the work required.) (*f.*) Such a brief general view of Greek history as is contained in the revised edition of Pennell's or Myers' History of Greece.

2. In Latin.—(*a.*) Grammar. Special stress will be laid upon an accurate and ready knowledge of grammatical forms. (*b.*) Cæsar: Gallic War, Bks. I-IV, or an equivalent. (*c.*) Cicero: Seven orations. (*d.*) Vergil: Aeneid, Bks. I-VI. (*e.*) Translation at sight of easy passages of prose Latin. (*f.*) Prose Composition (Daniell or Moulton and Collar.) (*g.*) An outline knowledge of the history of the Roman Republic.

3. In English.—(*a*) The candidate will be required to write a short essay, which will be judged from the standpoint of thought, spelling, punctuation, grammar, and division into paragraphs, on one of several topics which will

be announced at the time of the examination. In 1900 the topics will be chosen from the following works:

Dryden's Palamon and Arcite; Pope's Iliad, Books I, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Scott's Ivanhoe; De Quincey's Flight of a Tartar Tribe; Cooper's Last of the Mohicans; Tennyson's Princess; Lowell's Vision of Sir Launfal.

All these books are to be read carefully and intelligently. Minute knowledge of them will not be required, but the candidate will be expected to have clearly in mind their important parts. For the examinations in 1901 and 1902 the following books are prescribed:

Shakespeare's Merchant of Venice; Pope's Iliad, Books I, VI, XXII and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; Scott's Ivanhoe; Cooper's Last of the Mohicans; Tennyson's Princess; Lowell's Vision of Sir Launfal; George Eliot's Silas Marner.

(*b*) In addition to the above, the candidate will be required to pass an examination upon the subject matter, form and other literary qualities of the following books: Shakespeare's Macbeth; Milton's Paradise Lost, Books I and II; Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and Addison.

For the examinations in 1901 and 1902 the following are prescribed:

Shakespeare's Macbeth; Milton's Lycidas, Comus, L'Allegro and Il Penseroso; Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and Addison.

A mastery of the essentials both of English Grammar and of elementary rhetoric will also be required of all candidates.

4. IN GERMAN OR FRENCH.—A good elementary knowledge of the language, such as is sufficient for reading easy

prose at sight. See outline of courses, "German A" and "French A," on pp. 34 and 35 respectively.

5. IN MATHEMATICS.—(*a.*) Algebra, through simultaneous quadratic equations. (*b.*) Elementary Plane Geometry, or as much as is contained in the first five books of Beman and Smith's, or Phillips and Fisher's, or Wentworth's Geometry.

Candidates from schools where Greek is not taught, who have completed the preparation for the Bachelor of Philosophy division of the Freshman class, but prefer to follow the course for the degree of Bachelor of Arts, will be allowed to do so by taking Greek through the whole four years.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed a preparatory course similar in character and equivalent in extent to the above requirements, will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Arts.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF PHILOSOPHY.

Admission by Examination.

In Latin, English, German (or French), and Mathematics, the requirements and recommendations are the same as for the course leading to the degree of Bachelor of Arts. Candidates for admission to this course need not offer Greek, in place of which they will be examined in the following subjects:

1. IN PHYSICS.—Carhart and Chute's Elements of Physics, or an equivalent.

2. IN CHEMISTRY.—Williams' Elements of Chemistry, or an equivalent.

3. IN BOTANY.—Gray's Lessons (revised edition), or Bergen's Elements of Botany.

4. In Physiology.—Martin's Briefer Course, or an equivalent.

5. In American or English History.—An outline knowledge of the leading facts.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed a preparatory course similar in character and equivalent in extent to the above requirements, will be admitted without condition into the Freshman class, in the course leading to the degree of Bachelor of Philosophy.

FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

Admission by Examination.

In Physics, Chemistry, Botany, Physiology, American or English History, and in English, the requirements are the same as for the course leading to the degree of Bachelor of Philosophy. The following are the additional requirements:

1. *In Languages.*—Latin, German or French, amounting collectively to four full years of work, two of which must be in Latin or German.

2. *In Mathematics.*—(*a.*) Algebra, through simultaneous quadratic equations; (*b.*) Plane Geometry, as much as is contained in the first five books of Beman and Smith's, or Phillips and Fisher's, or Wentworth's Geometry; (*c.*) either Solid and Spherical Geometry, or Plane Trigonometry.

Admission by Certificate.

Candidates who offer satisfactory evidence of having completed a preparatory course, similar in character and equivalent in extent to the above requirements, will be admitted without condition into the Freshman class in the course leading to the degree of Bachelor of Science.

Accredited Schools.

The following schools are on the accredited list; certificates of the satisfactory completion, in any of them, of any branch in the course of study required for admission to the College will be accepted in lieu of examination:

Aspen High School.
Canon City High School.
Central City High School.
Cheyenne (Wyo.) High School.
College of the Southwest.
Colorado Springs High School.
Denver: High School, Dist. No. 1.
" High School, Dist. No. 2.
" High School, Dist. No. 7.
" North Side High School.
Durango High School.
Fort Collins High School.
Georgetown High School.
Golden High School.
Grand Junction High School.
Greeley High School.
Idaho Springs High School.
Jarvis Hall, Montclair.
Leadville High School.
Longmont High School.
Montclair High School.
Pueblo: High School, Dist. No. 1.
" High School, Dist. No. 2.
Salida Academy.
Salida High School.
Trinidad High School.
Miss Wolcott's School, Denver.
Wolfe Hall, Denver.

ENTRANCE EXAMINATIONS.

Examinations for admission to the College will take place on Monday and Tuesday, June 4 and 5, 1900, and again on Tuesday, September 11, 1900. They are held in Palmer Hall, beginning at 9 A. M. No examination will be held between these dates, but delayed examinations may be held after the beginning of the fall term for the accommodation of students who, for good reason, have been unable to attend at the regular time.

For the accommodation of students residing at a distance, examinations will be held under the direction of authorized persons, at various points in and near the State, as need may require. The cities of Cheyenne, Wyo., Denver, Pueblo, Trinidad, Leadville, Montrose and Grand Junction, Colo., and Las Vegas, N. M., are points where such arrangements can readily be made, and others may be added, if necessary. But students who desire examinations at these or other points must notify the President at least three weeks in advance of the time of the regular examination.

ADMISSION TO COURSES.

Students will be received into advanced classes on examination in the studies of the preceding year. The Faculty may, at their discretion, receive certificates from other colleges as evidence that the student has satisfactorily pursued these or equivalent studies. Students are expected to register and begin attending their courses at the first exercise of each half-year.

COURSES OF STUDY.

Three courses of study are offered in the College, each subject to considerable variation at the will of the student. The course leading to the degree of Bachelor of Arts corresponds to that which the best Eastern colleges require for the same degree. In the course leading to the degree of Bachelor of Philosophy there is no Greek, and less Latin than in the course for Bachelor of Arts; but the required work includes more of the Sciences and Modern Languages. The course leading to the degree of Bachelor of Science is so arranged that special attention may be devoted to any one of five principal lines of study, which give prominence to Mathematics, Physics, Chemistry, Biology, and Geology, respectively. A detailed description of these will be found below.

For graduation a student must have completed an average of seventeen hours per week throughout the four years (total requirement 68 hours).

OUTLINE OF COURSES.

FRESHMAN YEAR.	A. B. COURSE.	HRS.	PH. B. COURSE.	HRS.	S. B. COURSE.	HRS.
FIRST HALF	Mathematics A (1) (p. 37)	4	Mathematics A (1) (p. 37)	4	Mathematics A (1) (p. 37)	4
	German B (p. 34)	4	German B (p. 34)	4	French or German (pp. 34, 35)	4
	or		or			
	French B (p. 36)	4	French B (p. 36)	4	English A and B (p. 33)	3
	English A and B (p. 33)	3	English A and B (p. 33)	3	Chemistry B (p. 39)	4
	Greek A (p. 31)	3	Latin A (p. 32)	3	Biology A (p. 41)	3
			or			
	Latin A (p. 32)	3	French A* (p. 35)	4		18
			or			
		17	German A* (p. 34)	4		
			Biology A (p 41)	3		
				17 or 18		
SECOND HALF	Mathematics A (2) (p. 37)	2	Mathematics A (2) (p. 37)	2	Mathematics A* (2) (p. 37)	2
	Mathematics A (3) (p. 37)	2	Mathematics A (3) (p. 37)	2	or	
	German B (p. 34)	4	German B (p. 34)	4	Mathematics A* (3) (p. 37)	2
	or		or		Physics A (p. 38)	2
	French B (p. 36)	4	French B (p. 36)	4	French or German (pp. 34, 35)	4
	English B (p. 33)	3	English B (p. 33)	3	English B (p. 33)	3
	Greek A (p. 31)	3	Latin A (p. 32)	3	Chemistry B (p. 39)	4
			or			
	Latin A (p. 32)	3	French A* (p. 35)	4	Biology A (p. 41)	3
			or			
		17	German A* (p. 34)	4		18
	Elective.					
	Mathematics A (4) (p. 37)	1	Biology A (p. 41)	3		
				17 or 18		

*Whichever was not offered as part of the preparation for College.

OUTLINE OF COURSES.—CONTINUED.

Sophomore Yr.	A. B. Course.	HRS.	Ph. B. Course.	HRS.	S. B. Course.	HRS.
First Half......	English C (p. 33)	3	French or German (pp. 34, 35)	4	German or French (pp. 34, 35)	4
	German or French (pp. 34, 35)	3	Chemistry B (p. 39)	4	English C (p. 33)	3
	Oratory B (p. 47)	1	Physics B (p. 38)	4	Oratory B (p. 47)	1
	Physics B* (p. 38)	4	English C (p. 33)	3	Physics B (p. 38)	4
	or				Additional requirement (p. 24)	5 or 6
	Biology A* (p. 41)	3		15		17 or 18
		10 or 11	*Elective.*			
	Elective.		(Choose courses to make a total of 17 or 18 hrs.)			
	(Choose courses to make a total of 17 or 18 hrs.)		Latin B (p. 32)	3		
	Latin B (p. 32)	3	Mathematics B (1) (p. 37)	3		
	Greek B (p. 32)	3	Mathematics C (p. 37)	3		
	Mathematics B (1) (p. 37)	3	Astronomy A (p. 38)	3		
	Astronomy A (p. 38)	3	History A‡ (p. 46)	2		
	History A‡ (p. 46)	2	History B‡ (p. 46)	2		
	History B‡ (p. 46)	2	Bible (p. 47)	1		
	Bible (p. 47)	1		17 or 18		
	Biology A (p. 41)	3				
		17 or 18				
Second Half....	English D (p. 33)	3	French or German (pp. 34, 35)	4	English D (p. 33)	3
	German or French (pp. 34, 35)	3	Oratory B (p. 47)	2	German (p. 34)	4
	Oratory B (p. 47)	1	Chemistry B (p. 39)	4	Oratory B (p. 47)	1
	Physics B* (p. 38)	4	Physics B (p. 38)	4	Physics B (p. 38)	4
	or				Additional requirement (p. 24)	5 or 6
	Biology A* (p. 41)	3		14		17 or 18
		10 or 11	*Elective.*†			
	Elective†.		(Choose courses to make a total of 17 or 18 hrs.)			
	(Choose courses to make a total of 17 or 18 hrs.)		English D (p. 33)	3		
	Latin B (p. 32)	3	Latin B (p. 32)	3		
	Greek B (p. 32)	3	Mathematics B (2) (p. 37)	3		
	Greek Art (p. 32)	1	Mathematics C (p. 37)	4		
	Mathematics B (2) (p. 37)	3	Mathematics D (p. 37)	2		
	Mathematics D (p. 37)	2	Astronomy A (p. 38)	3		
	History A‡ (p. 46)	2	History A‡ (p. 46)	2		
	History B‡ (p. 46)	2	History B‡ (p. 46)	2		
	Bible (p. 47)	1	Bible (p. 47)	1		
	Biology A (p. 41)	3	Greek Art (p. 32)	1		
	Biology C (p. 41)	3	Biology C (p. 41)	3		
		17 or 18		17 or 18		

---

* Both these subjects may be taken or both may be omitted if the student takes Chemistry A in his Junior year.

OUTLINE OF COURSES—CONTINUED.

JUNIOR YEAR.	A. B. COURSE.	HRS.	PH. B. COURSE.	HRS.	S. B. COURSE.	HRS.
FIRST HALF	Philosophy A (p. 29)	3	Philosophy A (p. 29)	3	Philosophy A (p. 29)	3
	Economics A (p. 44)	4	Geology A (p. 43)	4	Geology A (p. 43)	4
	Chemistry A* (p. 39)	4	Economics A (p. 44)	4	Additional requirement (p. 24)	4
	Electives (pp. 25–28)	6 or 10	Electives (pp. 25–28)	6	Electives† (pp. 25–28)	6
		17		17		17
SECOND HALF	Philosophy A (p. 29)	3	Philosophy A (p. 29)	3	Philosophy A (p. 29)	3
	Chemistry A* (p. 39)	4	Geology A (p. 43)	4	Geology A (p. 43)	4
	Electives (pp. 25–28)	10 or 14	Electives pp. (25–28)	10	Additional requirement (p. 24)	4
					Electives† (pp. 25–28)	6
		17		17		17
SENIOR YEAR.						
FIRST HALF	Philosophy C (p. 30)	4	Philosophy C (p. 30)	4	Philosophy C (p. 30)	4
	Electives (pp. 25–28)	13	Electives (pp. 25–28)	13	Additional requirement (p. 24)	4
					Electives (pp. 25–28)	9
		17		17		17
SECOND HALF	Philosophy D (p. 30)	4	Philosophy D (p. 30)	4	Philosophy D (p. 30)	4
	Electives (pp. 25–28)	12	Electives (pp. 25–28)	12	Additional requirement (p. 24)	4
					Electives (pp. 25–28)	8
		16		16		16

* Required only of students who have had neither Physics B nor Biology A in the Sophomore year.
† History amounting to 2 hours for one year must be included in the student's course.

ADDITIONAL REQUIREMENTS IN S. B. COURSE.

COURSE IN PURE MATHEMATICS AND ASTRONOMY.	HRS	COURSE IN PHYSICS.	HRS.	COURSE IN BIOLOGY.	HRS.	COURSE IN GEOLOGY.	HRS.	COURSE IN CHEMISTRY.	HRS.
SOPHOMORE YEAR.									
First Half.									
Mathematics B (1) (p. 37)	3	Mathematics B (1) (p. 37)	3	Mathematics B (1) (p. 37)	3	Mathematics B (1) (p. 37)	3	Mathematics B (1) (p. 37)	3
				or		or		or	
Mathematics C (p. 37)	3	Mathematics C (p. 37)	3	Astronomy A (p. 38)	3	Astronomy A (p. 38)	3	Astronomy A (p. 38)	3
				Biology B (p. 41)	2	Geology B. (p. 43)	3	Chemistry D (p. 40)	3
	6		6		5		6		6
Second Half.									
Mathematics C (p. 37)	4	Mathematics C (p. 37)	4	Biology B (p. 41)	3	Biology C (p. 41)	3	Chemistry D (p. 40)	6
Mechanical Draw.	2	Mechanical Drawing	2	Biology C (p. 41)	3	Geology F (p. 44)	3		
	6		6		6		6		
JUNIOR AND SENIOR YEARS.									
Mathematics and Astronomy (pp. 37, 38)	4	Physics (p. 38)	4	Biology (p. 41)	4	Geology (p. 42)	4	Chemistry (p. 39)	4

ELECTIVE STUDIES FOR JUNIORS AND SENIORS IN THE A. B., PH. B., AND S. B. COURSES.

Unless otherwise stated, each Elective Study continues through the year, and is open to both Seniors and Juniors. Not all the Electives will be given in any one year.

PHILOSOPHY—(Page 28.)

		Hours per week.
B.	*Psychological Seminary*	1
E	*Modern German Philosophy;* first half-year	2
F.	*The Philosophic Movement in England;* second half-year	2
G.	*Advanced Logic;* second half-year	2
H.	*Lotze;* second half-year	2
I.	*Seminary in Social Ethics;* second half-year	1
J.	*Seminary in Greek Philosophy;* one half-year	1
K.	*History of the Development of Religion;* second half-year	2

PEDAGOGY—(Page 31.)

A.	*History and Philosophy of Education;* first half-year	2
B.	*School Hygiene and Child Study;* second half-year	2
C.	*Original Observations*	1
D.	*Pedagogical Seminary*	1

MATHEMATICS—(Page 37.)

B (1).	*Analytical Geometry* (elementary); first half-year	3
B (2).	*Analytical Geometry* (more advanced); second half-year	3
C.	*Calculus, Differential;* first half-year	3
C.	*Calculus, Differential and Integral;* second half-year. (The course must be pursued one full year.)	4
D.	*The History and Logic of Mathematics;* one half-year.	2
E.	*Modern Synthetic Geometry;* one half-year	4
F.	*Differential Equations;* one half-year	4
G.	*Elementary Theory of Functions;* one half-year	4
H.	*Elementary Surveying;* second half-year	3

ASTRONOMY.—(Page 38.)

A.	*Astronomy, Elementary;* first half-year	3
B.	*Astronomy, Observations and Computations;* second half-year	4
C.	*Mathematical Astronomy*	2
D.	*Meteorology;* second half-year	2

CHEMISTRY.—(Page 39.)

C (1).	*Chemical Analysis, Qualitative;* first half-year	3
C (2).	*Chemical Analysis, Qualitative;* second half-year	6
D.	*Chemical Analysis, Quantitative*	4
	Theoretical Chemistry	3

		Hours per week.
PHYSICS.—(Page 38.)		
C.	*General Physics;* first half-year	4
D.	*Dynamics;* second half-year	3
E (1).	*Electricity and Magnetism;* first half-year	4
E (2).	*Electricity and Magnetism;* second half-year	3
F.	*Alternating Electric Currents;* second half-year	1
BIOLOGY.—(Page 41.)		
A.	*Elementary Biology*	3
B (1).	*Cryptogamic Botany;* first half-year	2
B (2).	*Cryptogamic Botany;* second half-year	3
C.	*Zoology;* second half-year	3
D.	*Comparative Anatomy of Invertebrates;* first half-year	3
E.	*Comparative Anatomy of Vertebrates;* second half-year	3
F.	*Histology;* first half-year	3
G.	*Physiology;* second half-year	3
H.	*Embryology;* second half-year	3
I.	*Bacteriology;* first half-year	2
GEOLOGY.—(Page 42.)		
A (1).	*Inorganic Geology;* first half-year	4
A (2).	*Organic Geology;* second half-year	4
B.	*Mineralogy;* first half-year	4
C.	*Advanced Mineralogy;* second half-year	2
D.	*Crystallography;* first half-year	2
E.	*Economic Geology;* first half-year	4
F.	*Invertebrate Palæontology;* second half-year	3
G.	*Vertebrate Palæontology;* second half-year	3
H.	*Petrography;* second half-year	3
ECONOMICS.—(Page 44.)		
B.	*Public Finance;* second half-year	3
C.	*Money and Banking;* first half-year	3
D.	*Railroads;* second half-year	2
E.	*Socialism;* second half-year	2
POLITICAL SCIENCE.—(Page 45.)		
A.	*Historical Politics;* first half-year	3
B.	*Comparative Politics;* second half-year	3
C.	*International Law;* first half-year	1
HISTORY.—(Page 46.)		
A.	*English History*	2
B.	*United States History*	2

HISTORY, *continued*—(Page 46).

		Hours per week.
C.	*History of the Middle Ages;* first half-year	2
D.	*History of the Renaissance;* second half-year	2
E.	*The Ancient Régime in Europe;* first half-year	2
F.	*French Revolution and Modern Times;* second half-year	2

ENGLISH.—(Page 33.)

D.	*American Literature;* second half-year	3
E.	*Early English Literature;* first half-year	3
F.	*Elizabethan Drama;* second half-year	3
G.	*Shakespeare*	2
H.	*English Poetry, Dryden to Wordsworth;* first half-year, open to Seniors	3
I.	*Victorian Literature;* first half-year, open to Seniors	3
J.	*English Prose, Bunyan to De Quincey;* second half-year, open to Seniors	3
K.	*Anglo-Saxon;* first half-year	3
L.	*Anglo-Saxon, Béowulf;* second half-year	3

GREEK.—(Page 31.)

B.	*Greek Drama*	3
C.	*Greek History;* one half-year	3
D.	*Greek Philosophy;* one half-year	3
E.	*Greek Epic and Lyric Poetry;* one half-year	3
F.	*Course for Teachers;* one half-year	3
G.	*Greek Art;* second half-year	1

LATIN.—(Page 32.)

C.	*Plautus and Terence;* one half-year	3
D.	*Elegiac Poetry;* one half-year	3
E.	*Roman Satire;* one half-year	3
F.	*Roman Life from Original Sources*	3
G.	*Vergil;* one half-year	3
H.	*Advanced Latin Composition*	1

GERMAN.—(Page 34.)

C.	*Schiller and Goethe;* first half-year	2
D.	*Lessing and Goethe;* second half-year	2
E.	*History of German Literature*	1
F.	*The Nibelungenlied*	2
G.	*Middle High German;* one half-year	3
H.	*Gothic*	2
I.	*Faust*	2
K.	*Poetry of Goethe and Schiller;* one half-year	2

		Hours per week.
FRENCH.—(Page 35.)		
C.	*Classic Period;* first half-year	2
D.	*Nineteenth Century Literature;* second half-year	2
E.	*Comedies of Moliere*	1
F.	*Critical Study of a Classic Author;* first half-year	2
G.	*French Lyric Poetry;* second half-year	2
H.	*Old French*	2
SPANISH.—(Page 37.)		
A.	*Elementary Course*	3
B.	*Advanced Course*	2
ITALIAN.—(Page 37.)		
A.	*Elementary Course*	3
PUBLIC SPEAKING.—(Page 47.)		
A.	*Voice and Pantomime*	2
B.	*Oratory*	1
C.	*Forensics*	1
D.	*Extempore Speaking;* first half-year	1
E.	*Vocal Interpretation*	1
F.	*Shakespeare*	1
BIBLE STUDY.—(Page 47.)		1
THEORY OF MUSIC.—(Page 66.)		
	Harmony	2
	Counterpoint	2

A student for any degree is usually permitted, further, to take as an elective any study required for another degree that does not appear in the course required for his own degree, and that does not introduce a conflict of hours. But, for this purpose, French A counts as three hours only, German A as four hours.

DEPARTMENTS OF INSTRUCTION.

A more detailed account of the different branches of study included in the College curriculum will be found below:

PHILOSOPHY.

The required work in this department extends over the whole of the Junior and Senior years, and gives the student a knowledge of the development of thought in the several departments of philosophy. The various Seminary courses afford training in the study and discussion of important psychological, sociological and ethical questions.

A. PSYCHOLOGY—3 hours.

1. NEUROLOGY.—Lectures on the brain and nervous system, with careful dissections, by the class, of brains of animals, and study of human brains. 3 hours, 8 weeks.—DR. LANCASTER.

2. ANIMAL INTELLIGENCE.—Lectures, reading of Romanes, Morgan, Binet and others. A study of comparative neurology of animals, with a thesis by each member of the class on the nervous development of some species of animal, compared with the habits and environment of the same animal. 3 hours, 6 weeks.—DR. LANCASTER.

3. EXPERIMENTAL PSYCHOLOGY.—Lectures, recitations and experiments, based on Sanford's *Handbooks*. 3 hours, 4 weeks.—DR. LANCASTER.

4. GENERAL PSYCHOLOGY AND LOGIC.—James' *Principles of Psychology, Briefer Course*, recitations, lectures, parallel readings and observations. Jevon's *Elementary Lessons in Logic*, studied under Psychology in connection with Reason. 3 hours, second half-year.—DR. LANCASTER.

   Lectures:

   (*a.*) Introductory Series.—PRESIDENT SLOCUM.

   (*b.*) Cerebral Localization and the Relation of Thought to Brain Activity. Four Lectures.—DR. J. T. ESKRIDGE.

5. PSYCHOLOGICAL LABORATORY.—Opportunity will be afforded for the conducting of experiments in special lines.

B. PSYCHOLOGICAL SEMINARY.—The leading subjects in Modern Psychology. Theses and Discussions. Study of the following subjects: The Relations of Mind and Body; Double Consciousness; Animal Psychology; The Psychology of Defectives; Mental Evolution in Man; Unconscious Cerebration; Diseases of the Memory; Diseases of the Will; Dreams; The Psychology of Music; Hallucinations; Power of Suggestion; Aphasias; Muscle Memory; Psychology of Fear; Hypnotism; Sanity and Insanity; Genius. Each student is also required to select some one subject for independent study and investigation during the year. 1 hour.—DR. LANCASTER.

C. HISTORY OF PHILOSOPHY.—4 hours, first half-year.—PRESIDENT SLOCUM.

1. Lectures, recitations and conferences, 3 hours.
   - (*a.*) Study in Comparative Religions.
   - (*b.*) Greek Philosophy. Twenty Lectures.
   - (*c.*) Modern Philosophy. Fifteen lectures. (1) The Rise and Fall of Scholasticism; (2) The Beginnings of Modern Philosophy — Bacon and Descartes; (3) Spinoza; (4) Locke; (5) The Sceptical Movement in France; (6) Leibnitz; (7) Berkeley; (8) Hume; (9) Kant, the Critique of Pure Reason; (11) Kant, the Transcendental Element in His Philosophy; (12) Hegel; (13) Schopenhauer; (14) Lotze; (15) Spencer—The Philosophy of Evolution.

2. METAPHYSICAL SEMINARY.—1 hour.

Presentation of papers and discussion of the following subjects:
   - (*a.*) The Great Religions of the World.
   - (*b.*) The Psychological Basis of Religious Faith.
   - (*c.*) The Psychological Basis of Æsthetics.
   - (*d.*) Philosophical Thought in England During the Nineteenth Century.
   - (*e.*) Evolution: Its History, Development and Results.

D. ETHICS.—4 hours, second half-year.

1. Janet's *Theory of Morals*. Lectures, theses and discussions. 3 hours.

   Lectures:
   - (*a.*) The Fundamental Principles of Ethics. 12 lectures.—PRESIDENT SLOCUM.
   - (*b.*) The Ethical Teaching of the Old Testament. 3 lectures.—REV. JAMES B. GREGG, D. D.
   - (*c.*) Christian Ethics. 3 lectures.—PRES. SLOCUM.

2. ETHICAL SEMINARY.—1 hour.—PRESIDENT SLOCUM.

Presentation of papers and discussions upon the following subjects:
   - (*a.*) Modern Social and Sociological Problems.
   - (*b.*) The Ethical View of Citizenship.
   - (*c.*) A Study of Educational Theories from an Ethical Standpoint.

E. MODERN GERMAN PHILOSOPHY.—First half of Senior year, 2 hours.—PRESIDENT SLOCUM.

F. THE PHILOSOPHICAL MOVEMENT IN ENGLAND.—Second half of Senior year, 2 hours.—PRESIDENT SLOCUM.

G. ADVANCED LOGIC.—Second half-year, 2 hours.—PRESIDENT SLOCUM.

H. LOTZE.—Second half-year, 2 hours.—PRESIDENT SLOCUM.

I. SEMINARY IN SOCIAL ETHICS.—The Labor Question, Temperance, Pauperism and other social problems considered from an ethical standpoint. Second half-year, 1 hour.

J. SEMINARY IN GREEK PHILOSOPHY.—One half-year, 1 hour.

K. HISTORY OF THE DEVELOPMENT OF RELIGION.—Second half-year, 2 hours.—MR. F. R. HASTINGS.

PEDAGOGY.

A. *History and Philosophy of Education.*—The recent educational Developments in Europe and America. Study of educational reformers, school systems and curricula. Lectures, reading and conferences. First half-year, 2 hours.—DR. LANCASTER.

B. *School Hygiene and Child Study.*—Hygiene of the senses, fatigue, child and adolescent psychology, problems of the school-room and of practical teaching. Lectures, reading and discussion. Second half-year, 2 hours.—DR. LANCASTER.

C. *Original Observations in Psychological and Pedagogical Fields of Study.* 1 hour.—DR. LANCASTER.

D. *Pedagogical Seminary.*—Reports and discussions of research work. 1 hour.—DR. LANCASTER.

Courses A, B and C may be taken by correspondence.

NOTE.—Special courses will be given if called for. Six such courses are being given this year.

GREEK.

The studies in this department are prescribed for all candidates for the degree of Bachelor of Arts in the Freshman year, and are elective for the remainder of the College course.

A. *Homer.*—Selections from the *Odyssey* and *Iliad* in the original, and all the poems in translation; *Plato, Apology* and *Crito; Herodotus*, Selections. 3 hours.

B. *Æschylus*, *The Septem* and *Prometheus; Sophocles*, *Antigone;* the remainder of *Æschylus*' and *Sophocles*' plays in translation; *Euripides*, *Alcestis* and *Medea.* 3 hours.

C. GREEK HISTORY.—(*a.*) *Herodotus;* careful study of the period of the Persian Wars. Readings from the dramatists for further illustration of the life of the period; or (*b.*) *Thucydides*, the Sicilian Expedition. Parallel readings in Curtius, Grote and other modern historians. Selections from Plutarch's Lives. 3 hours, one half-year.

D. GREEK PHILOSOPHY.—*Plato*, *Phaedo.* Selections from other dialogues, and from the works of *Xenophon.* Zeller's *Socrates and the Socratic Schools.* 3 hours, one half-year.

E. GREEK EPIC AND LYRIC POETRY.—*Homer*, *Hesiod* and *Pindar.* 3 hours, one half-year.

F. A COURSE DESIGNED FOR TEACHERS.—Selections from Xenophon; composition; careful grammatical study. One half-year, 3 hrs.

G. GREEK ARCHITECTURE AND SCULPTURE.—Tarbell's History of Greek Art, with supplementary readings. Second half-year, 1 hour.

LATIN.

A. *Livy*, Bk. XXII; *Cicero*, De Senectute, De Amicitia; *Pliny*, Selected Letters; *Horace*, Odes. 3 hours.

B. *Horace*, Selections from the Epistles and Satires; *Tacitus*, Germania and Agricola; *Terence*, Phormio; *Plautus*, Captivi; *Cicero*, Selected Letters. 3 hours.

C. ROMAN DRAMATIC POETRY.—Selected plays of *Plautus* and *Terence;* history and characteristics of the Roman Drama. One half-year, 3 hours.

D. ROMAN ELEGIAC POETRY.—*Catullus*, *Tibullus*, *Propertius*, and *Ovid.* The authors will be studied from a literary point of view. One half-year, 3 hours.

E. ROMAN SATIRE.—History and characteristics of Roman Satire. Selections from *Horace*, *Persius*, *Petronius*, *Juvenal.* Parallel readings in English Literature. One half-year, 3 hours.

F. ROMAN LIFE.—Manners, morals, politics and religion under the late Republic and the Empire. *Cicero*, Selected Letters; *Petronius*, Cena; *Pliny*, Selected Letters; *Martial*, Selected Epigrams; reports on special topics. 3 hours.

G. VERGIL.—The *Æneid*, Books VII–XII, the *Bucolics*, and selections from the *Georgics*. One half-year, 3 hours.

H. LATIN COMPOSITION.—Study of Idiom. Translation into Latin prose. 1 hour.

ENGLISH.

A. *Study of English Words.*—First half-year, 1 hour. Required of Freshmen.—PROFESSOR PARSONS.

B. *Rhetoric and Composition.*—Written exercises and conferences. Required of Freshmen. First half-year, 2 hours; second half-year, 3 hours.—PROFESSOR PARSONS.

C. *English Composition.*—Advanced course. Required of Sophomores. First half-year, 3 hours.—MR. PATTISON.

D. *American Literature.*—Authors studied: Irving, Cooper, Poe, Bryant, Hawthorne, Longfellow, Emerson, Lowell, Holmes, Whittier. Essays. Second half-year, 3 hours.—PROFESSOR PARSONS.

E. *Early English Literature.*—From the Anglo-Saxon Conquest to Milton, inclusive. The principal literature of the early periods read rapidly, and Chaucer, Spenser, Bacon and Milton studied carefully. Essays. First half-year, 3 hours.—PROFESSOR PARSONS.

F. *The Elizabethan Drama.*—Marlowe, Ben Jonson, Beaumont and Fletcher, Webster, studied with Thayer's Best Elizabethan plays. The larger part of the half-year devoted to Shakespeare. The principal plays read rapidly, with special attention to the development of the author's genius. Essays. Second half-year, 3 hours.—PROFESSOR PARSONS.

G. A critical text study of three dramas of Shakespeare. The class meets once a week for a two-period session. In 1898–9 King Lear, Macbeth, and Hamlet were studied.—PROFESSOR AHLERS.

H. *English Poetry.*—From Dryden to Wordsworth. Authors studied: Dryden, Pope, Thomson, Gray, Cowper, Burns, Scott, Byron, Moore, Shelley, Keats, Coleridge, Southey, Wordsworth. Each student writes an exhaustive essay on one author for criticism by the class. First half-year, 3 hours. Elective for Seniors.—PROFESSOR PARSONS.

I. *Victorian Literature.*—Authors studied: Carlyle, Tennyson, Newman, Arnold, Ruskin, Robert Browning. Essays. First half-year, 3 hours. Elective for Seniors.—PROFESSOR PARSONS.

J. *English Prose.*—From Bunyan to De Quincey. Authors studied: Bunyan, Addison, Swift, Johnson, Goldsmith, Burke, Macaulay, Lamb, De Quincey. Each student writes an exhaustive essay on one author for criticism by the class. Second half-year, 3 hours. Elective for Seniors.—Professor Parsons.

K. **Anglo-Saxon.*—Bright's Anglo-Saxon Reader and the Sievers-Cook Old English Grammar. Lectures on Anglo-Saxon Literature. First half-year, 3 hours.—Assistant Professor Noyes.

L. *Anglo-Saxon.*—Béowulf. Course K prerequisite. Second half-year, 3 hours.—Assistant Professor Noyes.

---

* Not to be given unless applied for by at least six students.

MODERN LANGUAGES.

GERMAN LANGUAGE AND LITERATURE.†

A. *Elementary Course.*—Joynes-Meissner's *Grammar.* Andersen, *Maerchen;* Storm, *Immensee;* Hauff, *Das kalte Herz, Die Karavane;* Eichendorff, *Aus dem Leben eines Taugenichts.* 4 hours through the year.—Professor Ahlers and Assistant Professor Smith.

B. *Intermediate Course.*—Riehl, *Fluch der Schoenheit;* Jensen, *Die braune Erica;* Chamisso, *Peter Schlemihl;* Heine, *Harzreise;* Gerstaecker, *Germelshausen;* Lessing, *Minna von Barnhelm;* Schiller, *Wilhelm Tell, Lyrics* and *Ballads.* Von Jagemann's *Prose Composition and Syntax.* 4 hours.—Professor Ahlers.

C. Schiller, *Maria Stuart, Die Jungfrau von Orleans;* Goethe, *Egmont;* Sime's *Life of Goethe.* First half-year, 2 hours.—Professor Ahlers.

D. Lessing, *Emilia Galotti, Nathan der Weise;* Rollestone's *Life of Lessing;* Goethe, *Iphigenie.* Second half-year, 2 hours. —Professor Ahlers.

E. An Outline of the History of German Literature. This course is conducted in English, and is open to all College students, whether they are taking German or not. Kuno Francke's *Social Forces in German Literature* will be used as a text-book. This reading will be supplemented by twelve lectures by the instructor. 1 hour.—Professor Ahlers.

---

†Authors and books designated under German A, B, C and D indicate the scope rather than the actual works read in these courses.

F. The *Nibelungenlied* and the Classic Period of the Twelfth Century. *Hartmann von Aue, Wolfram von Eschenbach, Gottfried von Strassburg.* Lectures and collateral reading. 2 hours.—PROFESSOR AHLERS.

G. *Middle High German.*—Braune-Paul's *Mittelhochdeutsche Grammatik; Nibelungenlied; Kudrun; Walter von der Vogelweide.* One half-year, 3 hours; a fourth hour at the discretion of the instructor.—PROFESSOR AHLERS.

H. *Gothic.*—Braune's *Gotische Grammatik;* Heyne's *Ulfilas.* 2 hours.—PROFESSOR AHLERS.

I. *The Faust-legend and its Development, and Goethe's Faust.*

Synopsis of the Course:

CHAPTER I. Kindred Legends before the 16th Century. (*a.*) Simon Magus. (*b.*) Ahasverus. (*c.*) Anthemios, Proterius and Theophilus. (*d.*) Cyprianus Antiochus. (*e.*) Tannhaeuser and Don Juan.

CHAPTER II. The historic Faust; the "Faustbuch" of 1587 and its development; the "Puppenspiele."

CHAPTER III. Faust Dramas before the 18th Century.

(*a.*) Calderon's El Magico Prodigioso.

(*b.*) Marlowe's Tragical History of Dr. Faustus.

CHAPTER IV. Faust in the 18th Century.
Lessing's Fragment; Maler Mueller, Klinger, etc.

CHAPTER V. Goethe's Faust.

(*a.*) The "Urfaust."

(*b.*) Faust, Part I, 1808.

(*c.*) Faust, Part II.

This course is conducted entirely in German. The class meets once a week for a 2-hour period. Open to the public.—PROFESSOR AHLERS.

K. *The Poems of Goethe and Schiller.*—This course is conducted entirely in German. The class meets once a week,—session one and a half hours. Open to the public.—PROFESSOR AHLERS.

FRENCH LANGUAGE AND LITERATURE.

A. *Elementary Course.*—French prose and grammar. Edgren's *French Grammar;* Rollin's *Reader;* Halévy, *Un Mariage d'Amour,* *L'Abbé Constantin;* Erckmann-Chatrian, *Les Fiancés de Grinderwald, Madame Thérèse.* Reading at sight. 4 hours through the year.—ASSISTANT PROFESSOR SMITH.

B. *Intermediate Course.*—Modern fiction and plays. Dictation and composition. Much ground is covered, and especial attention paid to pronunciation. The class is largely conducted in French. Among others, the following books are read: Sand, *La Mare au Diable;* Hugo, *Bug Jargal;* Dumas, *La Tulipe Noire;* Feuillet, *Le Roman d'un Jeune Homme Pauvre;* Merimée, *Colomba;* Erckmann-Chatrian, *L'Ami Fritz;* Molière, *Le Medecin Malgré Lui;* Corneille, *Le Cid;* Racine, *Athalie.* 4 hours through the year.—ASSISTANT PROFESSOR SMITH.

C. *Classic Period.*—Representative plays of the great classical dramatists are read. Much pronouncing is done; very little translation. Students do outside reading, and hand in written reports. A series of lectures on the history of the French theatre is given. This course is conducted entirely in French. First half-year, 2 hours.—ASSISTANT PROFESSOR SMITH.

D. *Nineteenth Century Literature.*—A series of lectures on the development of Romanticism in French Literature; some of the plays read are Hugo's *Hernani, Ruy Blas;* two comedies of de Musset; de Bornier's *La Fille de Roland;* Pailleron's *Le Monde ou l'on s'ennuie;* Rostand's *Cyrano de Bergerac.* Prose Romances: de Vigny's *Cinq Mars;* Greville's *Dosia.* Second half-year, 2 hours.—ASSISTANT PROFESSOR SMITH.

E. *Comedies of Molière.* 1 hour.—PROFESSOR AHLERS.

F. *Critical Study of a Classic French Author.*—Next year Pascal's *Pensées* and *Lettres Provinciales* will be chosen. Course conducted in French. First half-year, 2 hours.—ASSISTANT PROFESSOR SMITH.

G. *French Lyric Poetry.*—Study of its development, versification, and forms of verse. Course conducted in French. Second half-year, 2 hours.—ASSISTANT PROFESSOR SMITH.

H. *Old French.*—Constans' *Chrestomathie*, *Le Covenant Vivien*, and part of *Aliscans* and *Raoul de Cambrai* will be read. A series of lectures on subjects of Old French Literature will be given, and some elementary principles of French phonetics treated. For conditions of admission, see instructor. 2 hours.—ASSISTANT PROFESSOR SMITH.

SPANISH.

A. *Elementary Course.*—Edgren's *Spanish Grammar*, Matzke's *Reader*. Modern prose writers. Students begin reading at once, and as soon as possible pronounce without translating. 3 hours.—ASSISTANT PROFESSOR SMITH.

B. Intended for those who have had Spanish A or a similar course. Some of the works of Cervantes, Lope de Vega, Calderon, etc., will be read. Composition and letter writing. 2 hours.—ASSISTANT PROFESSOR SMITH.

ITALIAN.

A. A course in Italian will be given similar to that of Spanish A, and the same methods employed. Grandgent's Italian Grammar is used. Much reading will be done. Among other works will be read Silvio Pellico's *Le Mie Prigioni*, Farina's *Il Signor Io*, and Dante's *La Vita Nuova*. 3 hours.—ASSISTANT PROFESSOR SMITH.

MATHEMATICS.

A (1). *Algebra.*—Series; the Binomial Theorem; Logarithms; Undetermined Coefficients; Theory of Equations. 4 hours till Christmas.

A (2). *Solid and Spherical Geometry.*—Planes and Lines in Space; Polyhedra, the Cylinder, Cone and Sphere; Spherical Triangles. Second half-year, 2 hours.

A (3). *Plane Trigonometry.*—The functions of one and two angles; the solution of triangles; simple applications. 4 hours during January. Second half-year, 2 hours.

A (4). *Spherical Trigonometry.*—Second half-year, 1 hour.

B (1). *Analytical Geometry (Elementary).*—Plane Loci of first and second order. First half-year, 3 hours.

B (2). *Analytical Geometry (More advanced).*—More thorough study of plane loci, some attention being given to modern methods. Second half-year, 3 hours.

C. *Calculus, Differential and Integral.*—First half-year, 3 hours; second half-year, 4 hours.

D. *History and Logic of Mathematics.*—This course is planned especially for those who are fitting themselves to be teachers of Mathematics. One half-year, 2 hours.

E. **Modern Synthetic Geometry.*—One half-year, 4 hours.

F. **Differential Equations.*—One half-year, 4 hours.

G. **Elementary Theory of Functions.*—One half-year, 4 hours.

H. *Elementary Surveying.*—Field work and computation; counts 3 hours, second half-year.

---

*Of courses E, F and G, only two are given during one and the same year.

ASTRONOMY.

A. *Astronomy (Elementary).*—The descriptive, rather than the mathematical side of Astronomy, is emphasized, and the work conducted in the form of recitations, supplemented with lectures. First half-year, 3 hours.

B. *Astronomy (Observations and Computations).*—The student is expected to make free use of the telescope. This course is in continuation of the preceding. Second half-year, 4 hours.

C. *Mathematical Astronomy.*—Planetary Orbits, etc. 2 hours.

D. *Elementary Meteorology.*—Second half-year, 2 hours.

PHYSICS.

INTRODUCTORY COURSES.—Prerequisite: *Plane Trigonometry.*

A. *Dynamics.*—A theoretical course, based on Lodge's Elementary Mechanics. Second half-year, 2 hours.

B. *General Physics.*—Lectures, recitations from text-books, assigned readings, and laboratory practice. 4 hours.

MORE ADVANCED COURSES.—Prerequisites: *Course B* and *Calculus.*

Courses in *Dynamics*, *Theory of Heat* (including *Thermodynamics*), *Theory of Sound*, *Physical Optics*, and *Electricity* and *Magnetism* will be offered, at the discretion of the instructor, to properly qualified students; and the facilities of the laboratory will be placed at their disposal for more extended experimental work than can be undertaken in Course B.

The advanced courses given in 1899–1900 are as follows:

C. *General Physics*, theoretical and experimental.—First half-year, 4 hours; second half year, 1 hour.

D. *Dynamics.*—Ziwet's Theoretical Mechanics. Second half-year, 3 hours.

E (1). *Theory of Electricity and Magnetism.*— Based principally upon the treatises of Gray, Emtage, and J. J. Thomson. (2). *Electrical Measurements.*—First half-year, 4 hours; second half-year, 3 hours.

F. *Alternating Electric Currents.*— Franklin and Williamson's Alternating Currents. Second half-year, 1 hour.

CHEMISTRY.

A. *Junior Class, A. B. Course. Beginning Chemistry.*—The general text-book work (chiefly upon Inorganic Chemistry) is supplemented by lectures and discussions upon the fundamental laws of chemistry, the applications of chemistry to sanitary science, medicine, and some of the arts, and also by the occasional preparation of papers from descriptions given in technical books, and by reports of visits to accessible metallurgical and manufacturing establishments. The experimental work is made very thorough and exacting, to secure a practical familiarity with the substances studied, and with the methods of manipulation practiced in chemical laboratories. The course covers sufficient Qualitative Analysis to enable the student to separate the common metals and acids, and includes a few simple determinations in Quantitative Analysis. The text-book is Remsen's Introduction to the Study of Chemistry. 4 hours' recitation and 4 hours' laboratory work (counts as 4 hours).

B. *Sophomore Class, Ph. B. Course. Second Year Work.*—The purpose of the course is to give to the student a general knowledge of chemistry. The second term is devoted chiefly to Organic Chemistry. The chief theories and laws are studied with reference to the explanation of chemical phenomena. The practical application of chemistry in the arts, and its uses in the sanitary regulation of daily life and work, are brought prominently forward. The preparation of abstracts from books on chemical technology and sanitary science, and discussions upon recent discoveries and applications of chemistry, will occasionally take the place of the usual recitation. The work in the laboratory comprises a short course in Qualitative Analysis, a series of experiments chiefly quantitative in character, and the preparation of a number of inorganic and organic compounds. The work of each student must be performed and reported individually, and occasionally such reports will be discussed by the class. 4 hours recitation or lectures and 5 hours of laboratory work.

C. *Qualitative Chemical Analysis.*—Prerequisite Chemistry A or equivalent. A text-book for reference and study will be assigned at the beginning of the year. The work of the course comprises experimental drill in obtaining characteristic reactions of the more common elements, study of empirical formulæ and symbolic expression of reactions, solution of substances, separation of groups of elements, and finally analysis — first of simple salts, and later of complex mixtures. The analytical work is confined almost wholly to inorganic substances, but includes certain common organic acids and a few organic bodies of general and medicinal use. First half-year, 6 hours (counts as 3); second half-year, 12 hours (counts as 6).

D. *Quantitative Chemical Analysis.*—Prerequisite Chemistry C. In this course are included the volumetric measurement of liquids, the accurate use of balances, and the general subject of Stoichiometry. In the earlier part of the course, the student is made familiar with gravimetric and volumetric determinations of single elements, by approved methods. Complete analyses of simple salts follow next in order. Salts, alloys, minerals, ores, slags and mineral waters are among the substances required to be analyzed by the student. The analysis of inorganic substances only is studied in this course. As a final part of his work in the course, the student is given practice in a few of the commercial or rapid determinations of the constituents of ores and minerals. The laboratory work occupies three consecutive hours, four days a week (counted as four hours.) Lectures will be given at intervals through the course. The text-book will be *Quantitative Analysis*, by Cairns.

S. B. COURSE IN CHEMISTRY.

An outline of this course is given on page 24. It includes as required studies Courses D and E, outlined above, and Organic Chemistry. Theoretical Chemistry may also be taken in this course as an elective.

DEPOSITS, CHEMICALS, SUPPLIES, ETC.

A cash deposit, to defray the cost of chemicals, gas and non-returnable supplies, must be made by each student at the beginning of the course. Glassware and necessary apparatus, except platinum vessels, are loaned, and must be returned in good condition for reissue, or be paid for if damaged or destroyed. Chemicals, supplies and apparatus are issued to students as needed. The deposit required for each course is as follows:

Preparatory course	$4 00
Chemistry A	5 00
Chemistry B	6 00
Chemistry C	15 00
Chemistry D	15 00
Organic Chemistry	15 00

BIOLOGY.

The laboratory is equipped with dissecting tables, trays, reagents, compound microscopes, dissecting microscope, sledge microtome, manikins, skeletons, incubator and other apparatus. Students supply for themselves the smaller items of equipment and a portion of the required biological material.

A. *Elementary Biology.*—Morphology of grasshopper; comparative work on at least two other insects; Crayfish and Cyclops; three Protozoans: Amoeba, Vorticella and Paramecium; Fresh Water Algae; Yeast, Moulds and other Fungi; life of Fungi contrasted with that of Algae; fundamental differences between plants and animals; the Cell, Elementary Embryology, and Origin of Species; dissection of Sponges, Hydra, Starfish and Clam; Moss and Liverwort or Fern; histology of tissues of flowering plants; dissection of a Vertebrate. Note books and drawings are made. Laboratory fee, $1. 6 hours of laboratory work with occasional lectures (counts 3 hours).

B. *Cryptogamic Botany.*—Advanced study of non-flowering plants, following for laboratory guide Arthur, Barnes and Coulter's Plant Dissection. Laboratory work with occasional recitations and quizzes. Atkinson's Elementary Botany. References: Sachs, De Bary, Bessey and others. Elementary Biology is prerequisite. 2 hours first half-year, 3 hours second half-year.

C. *Zoology.*—Dissection 2 hours, recitations 2 hours (counts 3 hours), second half-year. Chapin and Rettger's Elementary Zoology; Hertwig's General Principles of Zoology. Laboratory fee, 50c.

D. *Comparative Anatomy of Invertebrates.*—Mainly laboratory work, with references. Zoology is prerequisite. 3 hours, first half-year.

E. *Comparative Anatomy of Vertebrates.*—Laboratory work, with occasional quizzes. References to standard authors. Zoology is prerequisite. 3 hours, second half-year.

F. **Histology.*—Practical work in preparation of tissues for microscopical slides; examination and drawing of histological mounts. Laboratory guide, Stohr, Stirling or Piersol. Laboratory fee, $2.50. 6 hours (counts 3 hours), first half-year.

G. **Physiology.*—Laboratory work 2 or 3 hours, and 2 recitations (counts 3 hours), second half-year. Thornton's Human Physiology; references to Foster, Flint, Martin. The library of the El Paso County Medical Association is available. Prerequisites, elementary courses in Biology, Chemistry and Physics. Laboratory fee, to cover actual cost of material.

H. **Embryology.*—Preparation of mounts; drawing from slides; comparative work on frog and other animals. Foster and Balfour's Elementary Embryology of the Chick. Laboratory fee, $2.50. Prerequisites, Biology or Zoology; Comparative Anatomy if possible. 5 laboratory hours, 1 lecture or recitation hour (counts 3 hours), second half-year.

I. **Bacteriology.*—Laboratory practice in preparation of culture media and technique of obtaining pure cultures from different sources. Laboratory guide and Strenberg's Manual of Bacteriology. Laboratory fee to cover actual cost of material. 2 or 3 hours, first half-year.

---

*Intended primarily for students expecting to study medicine. Embryology and Bacteriology will not be offered in 1900-01.

GEOLOGY.

The study of Geology is peculiarly attractive in the vicinity of Colorado Springs. Few localities present strata of so many geological ages or so varied an assemblage of rock and mineral species. Fossils of systems as early as the Cambrian and as late as the Quaternary occur within a radius of six miles of the College. Veins, dikes, faults, caves, flood-plains, river-erosion, sand-carving and the results of orogenic and glacial action are all well illustrated near at hand.

To the wealth of geological illustration that nature presents to the student in this district, the College Museum and a collection of lantern slides add many instructive specimens and views. The equipment of the geological laboratory includes a Fuess petrographical microscope, apparatus for the polishing of rock sections, a series of microscopic rock sections, some of the more important atlases of petrography, a relief model of the Pike's Peak region (donated by the Colorado Springs High School), charts of stratigraphical geology and palæontology, a map showing the distribution of the mineral resources of Colorado, and other useful apparatus. A large series of geological and topographical maps and atlases of the United States, Colorado, etc., is available for reference in Coburn Library.

A. *Geology.*—Recitations, special exercises and excursions to points of geological interest. In the first half-year Dynamical, Structural and Physiographical Geology are studied; in the second, Historical Geology. Text book: Scott's *Introduction to Geology*, supplemented by the works of Le Conte, Dana, Geikie, Prestwich, etc. Prerequisite for the first half year (Inorganic Geology), Elementary Chemistry; and for the second (Organic Geology), Biology or Zoology. Students in Structural Zoology or an allied science, who are looking forward to Geology as one of their future studies and wish to make the best preparation for it, should give as much attention as possible to the *comparative* and *systematic* side of their subject. By electing the course in Mineralogy before taking Geology, an additional and very material advantage may also be secured. 4 hours.

B. *Mineralogy.*—Advised for students who intend to elect any of the other branches of Geology along inorganic lines. This course is planned first of all to be practical. The *economic* or *ore classification* of minerals is used and the time is devoted chiefly to laboratory work in Descriptive and Determinative Mineralogy. Only enough Crystallography is given to enable the student to understand the general relations of crystals and apply the terms of form and cleavage used in determinative tables. Text-books: Moses and Parsons' *Mineralogy, Crystallography and Blowpipe Analysis* and Crosby's *Tables for the Determination of Common Minerals*. Reference-books: Dana's *Text-Book of Mineralogy*, Cornwall's *Blowpipe Analysis*, Brush and Penfield's *Determinative Mineralogy*, etc. First half-year, 4 hours. There is a laboratory fee of four dollars, covering use of gas, minerals and certain other supplies. Uniform individual working outfits, consisting of blowpipe, platinum forceps, platinum wire, test-tubes, acids, fluxes, etc., complete, except for items used as general laboratory equipment, are furnished at cost.

C. *Advanced Mineralogy.*—Prerequisite: *Geology B*. A laboratory course arranged to enable students who so desire to continue the practical work of *B* and become acquainted with a more extended line of minerals. Text and reference books: those of *Geology B*, together with Dana's *System of Mineralogy*, *Supplement*, etc. There is a laboratory fee of two dollars. Second half-year, 2 hours.

D. *Crystallography.*—Recitations and laboratory work. Text-book: Williams' *Elements of Crystallography*, supplemented by the crystallographic part of Brush and Penfield's *Determinative Mineralogy*. First half-year, 2 hours.

E. *Economic Geology.*—Recitations; examination of useful minerals and rocks, and of products derived from them; visits to geological localities of especial economic interest, and to industries based on geologic resources; preparation of papers and discussion upon assigned topics. Text-book: Tarr's *Economic Geology of the United States.* Geology A is a prerequisite; Mineralogy an important aid. First half-year, 4 hours.

F. *Invertebrate Palæontology.* — Recitations and laboratory study of fossils of principal groups, preceded in part by a study of recent forms of the same or allied groups. Zittel's *Text-Book of Palæontology, Volume I.* The student is also guided in the use of other important literature on the subject. Zoölogy is a prerequisite. Second half-year, 3 hours. This course will not be given in 1901–02.

G. *Vertebrate Palæontology.*—Recitations and laboratory studies in the Comparative Osteology, Taxonomy and Evolution of the Vertebrata. The student makes use of the general works and monographs of Reynolds, Zittel, Huxley, Cuvier, Leidy, Cope, Marsh, Osborn, Scott, etc. Zoölogy is a prerequisite. Second half-year 3 hours.

H. *Petrography.*—An elementary course in the Microphysiography of Rock-components. Recitations and laboratory work. Luquer's *Minerals in Rock-Sections.* Prerequisites: Mineralogy, Crystallography and Physics. Second half-year, 3 hours.

ECONOMICS.

The instruction in this department consists of a systematic course in the elements of Political Economy, required of all students, followed by elective courses in special subjects. The systematic course is a prerequisite for the pursuit of any of the elective courses.

A. *Elements of Political Economy.*—Required of Juniors. Lectures, recitations, discussions, assigned reading and reports. Text: Walker's *Political Economy* (Adv. Course). First half-year, 4 hours.

B. *Public Finance.*—This course treats of taxation, public expenditure, public debts and the budget. Instruction is given mainly by lectures, with reading in various systematic treatises and monographs. Text: Bastable's *Public Finance.* Second half-year, 3 hours.

C. *Money and Banking.*—An historical and theoretical course in money and banking, treating especially the production of the metals, the theory of value, the history of prices, bimetallism, paper money, bank notes, etc. Lectures, recitations, reports and discussions. Texts: Walker, *Money;* White, *Money and Banking;* Dunbar, *Theory and History of Banking.* First half-year, 3 hours.

D. *Railroads.*—A course on the history of transportation and its present problems, with especial reference to the relations of the railroads to the State, to the public, and to the employees. Lectures, recitations, etc. Texts: Hadley, *Railroad Transportation;* Dabney, *Public Regulations of Railways.* Second half-year, 2 hours.

E. *Socialism.*—An historical and critical course in socialism and socialistic theory. Especial attention is paid to the historical basis of socialism, the French revolution, the idealists, the German scientific socialists, the Christian socialists, the State socialism of to-day, and also to the various attempts at socialistic reforms, such as co-operation, profit-sharing, etc. Lectures and recitations. Texts: Ely, *French and German Socialism;* Schaeffle, *Quintessence of Socialism.* Second half-year, 2 hours.

POLITICAL SCIENCE.

Three courses are offered in Political Science: first, an historical course, showing the broad political features of the various historical forms of government; second, a comparative study of the chief existing governments; third, a brief course in International Law. Notice also the course in Socialism, described under the department of Economics.

A. *Historical Politics.*—This course aims to trace the origin and growth of government from its primitive forms to the establishment of the modern states, studying successively the semi-amorphous horde, gentile society, the ancient city, the Athenian Democracy, Greek Confederations, the Roman Republic and Empire, the Germanic folk, the feudal system, the political system of the Church, the Holy Roman Empire, the rise of national states, the development of absolute and constitutional monarchy, the growth of democracy, etc. The course is conducted mainly by means of lectures, supplemented by recitations, reports and extensive outside reading. Text: Wilson's State. First half-year, 3 hours.

B. *Comparative Politics and Constitutional Law.*—The course is a study and comparison of the governments of the chief modern states. It aims to give an exposition of the constitutional law of the several States and of their actual political organization. The great problems of federalism and centralization, presidential and responsible ministerial government, colonial government, and civil liberty, receive especial consideration. This course is given by means of lectures, recitations, and collateral reading. References are made to the principal cases in Thayer's Cases. Text, Wilson's State. Second half-year, 3 hours.

C. *International Law.*—A brief course in the elementary principles of International Law, with especial reference to American problems, such as arbitration, law of neutrality, citizenship, extradition, and to questions of diplomatic policy, such as the Monroe Doctrine. The course is conducted principally by recitations, discussions, and reports, with frequent reference to Wharton's Digest, Snow's Cases and the "Treaties and Conventions of the United States." Text: Davis' International Law. First half-year, 1 hour.

HISTORY.

If the student intends to take both English history and the history of the United States, it is desirable that he should pursue the first before taking up the second. The course in the history of the Middle Ages is continuous with the course in the history of the Renaissance, and the first is required of those electing the second. The course in Historical Politics, which is described among the studies in Political Science, is a course in general political and constitutional history.

A. *English History.*—A course in the political history of England from the earliest times to the American War. The course is conducted chiefly by recitations and collateral reading, supplemented by lectures on the constitutional and economic development. Text: Gardiner's *Student's History of England.* 2 hours.

B. *United States History.*—A course in the history of the American colonies and the United States. This course is conducted by recitations, reading and lectures. Text: The "*Epochs of American History*" *Series.* 2 hours.

C. *History of the Middle Ages.*—This is a narrative and descriptive course in the history of the Middle Ages. Special attention is paid to the social, economic, religious, and artistic aspects of the period. It is conducted by lectures, recitations and extensive collateral reading. Text: Duruy's *Middle Ages.* First half-year, 2 hours.

D. *History of the Renaissance.*—This course is conducted in the same manner as the course on the Middle Ages. Second half-year, 2 hours.

E. *The Ancient Régime in Europe.*—This is a course in the history of Europe in the Seventeenth and Eighteenth Centuries.

The instruction is given chiefly by means of lectures and required readings. First half-year, 2 hours.

F. *The French Revolution and Modern Times.*—This course is continuous with the last, and is given in the same manner. Second half-year, 2 hours.

Historical courses, amounting to 2 hours a week for one year, must be included in the elective work of each student.

BIBLE STUDY.

Open as an elective to Juniors and Seniors. Freshmen and Sophomores having time to take the work will be allowed advanced credit on Junior and Senior electives. Academy students will be allowed to enter the class, but will receive no credits. 1 hour a week.—PROFESSOR PARSONS.

The following courses are offered, which will be taken in successive years:

I. Introduction to the Books of the New Testament.
II. The Life of Christ (two years).
III. Studies in the Books of Samuel.
IV. The Life of Paul.

In 1900–1901 the class will study the second-half of Course II.

ORATORY.

A general course in voice development is required in the Sophomore year, and elective courses are offered which seek to prepare the student for every form of public speaking.

A. *Voice and Pantomime.*—A course in voice and body training is given with the end in view of an intelligent interpretation of literature. 2 hours.

B. *Oratory.*—Public speaking is studied in all its forms. The careful preparation of an oration and its delivery in public constitutes a large share of the work. A prize of $25 is offered by the College Oratorical Association for the best oration delivered in a contest at the end of the year. 1 hour.

C. *Forensics.*—A course is offered covering the Nature of Argumentation, Briefs and Brief drawing, Preparatory reading for Argumentation, The Nature of Evidence, and the preparation of three forensics. 1 hour.

D. *Extempore Speaking.*—Special attention is given to the technical forms of public addresses. First half-year, 1 hour.

E. *Vocal Interpretation.*—This course includes studies in the masterpieces of English literature and in the nature and interpretation of lyric, epic, and dramatic forms.

F. *Shakespeare.*—Two plays will be studied with special reference to their vocal interpretation. 1 hour.

Debate.—There are four College literary societies in which debate is a prominent feature. The third debate with the University of Nebraska occurred April 13, 1900.

PHYSICAL TRAINING.

The peculiar climate of Colorado Springs and its charming surroundings make outdoor sports possible and attractive throughout the year. Tennis is frequently played at Christmas and New Years, and baseball practice is begun as soon as the football season is over. A gymnasium, equipped with the necessary appliances for the most approved methods of physical exercise, heated by steam and furnished with shower-baths, lockers, etc., serves for indoor exercises.

Physical training is required of every young woman unless excused by the College physician. Upon entrance, each is given a thorough physical examination. From the data recorded an anthropometric chart is plotted, showing defects in comparison with the normal standard, and prescribing special corrective exercises where needed. From November until May class drills are held, which include military tactics, free body building, the use of apparatus and Swedish work. Tennis, battle-ball and basket-ball are played, the last according to the rules adopted by the Conference on Physical Training held in Springfield, Massachusetts, June, 1899, and now used by all the leading Eastern colleges. The physical instructor is Miss Elizabeth Barrows.

Football, baseball, tennis and track athletics are consolidated in the Colorado College Athletic Association. A board, consisting of three members of the Faculty — Professors Ahlers, Cajori and Walker — three representatives from the city — Messrs. W. P. Bonbright, C. H. Mallon and W. K. Jewett — and nine representatives from College and Academy, including the Captains and Coach of the teams, controls the interests of the association. This board advises the students in all sports, audits the accounts of managers, and raises and authorizes the expenditure of money for the various athletic sports.

In 1898 the Athletic Association built, at large expense, a fine athletic park. For this purpose the natural amphitheater in the rear of the College buildings, facing the mountains, was used. About five acres of ground were leveled and enclosed by an eight-foot fence, and a fine grand-stand, with a seating capacity of 600, was erected. For adaptation to its purposes, there is no more complete and satisfactory park in the West; for situation and beauty of its surroundings it is probably unrivaled in the world.

Within fifteen minutes' walk of the College is a fine golf club, of which College students may become members. The delightful open winters of Colorado Springs make it possible to enjoy this excellent sport throughout the year.

The College has held the baseball championship in the State Intercollegiate League for the last two years, and in 1899 won the football championship.

SCHEDULE OF RECITATIONS.

Hrs.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8:30	French A (1). German A (1). Mathematics A (1). [Political Science C.] I. Latin.	[Economics A.] *Economics D.* French A (1). German A (1). Mathematics A (1). [Philosophy C.] *Philosophy D.* I. Latin. III. Latin.	[Economics A.] *Economics E.* French A (1). German A (1). Mathematics A (1). [Philosophy C.] *Philosophy D.* I. Latin. III. Latin.	[Economics A.] *Economics D.* French A (1). German A (1). Mathematics A (1) [Philosophy C.] [*Philosophy D.*] I. Latin. III. Latin.	Economics A. *Economics E.* English A (1). Mathematics B. [Philosophy C.] *Philosophy D.* I. Latin. III. Latin. IV. English.	English B (1). History B. Mathematics B. Spanish A. I. Latin. II. History. III. Latin. IV. English.
9:20	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.	CHAPEL.
9:45	[English I.] French B. German B. History A. Mathematics C. II. Greek.	Chemistry A. French B. German B. Oratory B. [Political Science A.] *Political Science B.* *II. Botany.* II. Greek. [II. Physiology.]	Chemistry A. French B. German B. [Political Science A] *Political Science B.* I. Drawing. *II. Botany.* II. Greek. [II. Physiology.]	Chemistry A. English B (1). Mathematics C. [Political Science A.] *Political Science B.* Spanish A. *II. Botany.* II. Greek. [II. Physiology.]	[English I.] French B. German B. History A. *II. Botany.* II. Greek. [II. Physiology.]	Chemistry A. [English I.] Mathematics C. I. Drawing.
10:35	French C. German C. Greek B. Mathematics A (2) [I. Government.] *I. History.* III. Geometry. IV. Greek.	Chemistry A.* English C. Geology A. *History F.* Mathematics A (2). [Pedagogy A.] *Pedagogy B.* Spanish A. III. Geometry. IV. Greek.	Chemistry A.* English C. Geology A. Mathematics A (2). [Pedagogy A.]. *Pedagogy B.* I. Drawing. III. Geometry. IV. Greek.	Chemistry A * English C. Geology A. *History F.* Mathematics A (2). [Pedagogy A] *Pedagogy B.* II. History. III. Geometry. IV. Greek.	English A (2). Geology A. Greek B. *Oratory B (Ph. B.)* [I. Government.] *I. History.* II. History. III. Drawing.	Chemistry A.* English B (2). Greek B. *Oratory B (Ph. B.)* I. Drawing.* IV. Greek.

11:25	Chemistry B. [Economics C.] [English E.] *English F.* Latin A. I. Mathematics. II. Latin. III. English. IV. Latin.	*Economics B* Philosophy A. Physics B. I. Mathematics. II. Latin. III. English. IV. Latin.	Chemistry B. [Economics C.] Latin A. Philosophy A. I. Mathematics. II. Latin. III. English. IV. Latin.	*Economics B.* English B (2). Philosophy A. Physics B. I. Mathematics. II. Latin IV. Latin.	Chemistry B. *Economics B.* Latin A. Philosophy B. I. Mathematics. II. German. III. Drawing.* IV. Latin.	Chemistry B. [Economics C.] [English E.] *English F.* I. Mathematics. III. Drawing. IV. Drawing.
12:15	Chemistry B.* German A (2). [History C.] *History D.* II. Mathematics.	[English H.] *English J.* German A (2). Physics B.* II. Mathematics.	Chemistry B.* [English E.] *English F.* German A (2). II. Mathematics. III. Greek.	[English H.] *English J.* Physics B.* IV. Mathematics.	Chemistry B * German A (2). [History C.] *History D.* IV. Mathematics.	Chemistry B.* III. Drawing.* IV. Drawing.*
2:30	*Biology C.* History B. Mathematics B. I. English. III. Chemistry. III. Greek. IV. Physics.	[Astronomy A.] Biology A. Greek A. *Mathematics D.* I. English. III. Chemistry. III. Greek. IV. Physics.		[Astronomy A.] Biology A. Greek A. *Mathematics D.* I. English. III. Chemistry. III. Greek IV. Physics.	[Astronomy A.] Biology A. [English H.] *English J.* Greek A. I. English. III. Chemistry. III. Greek. IV. Physics	
3:20	Physics B. III. Chemistry.* IV. Mathematics.	Biology A.* French C. German C. II. English. III. Chemistry.* IV. Physics.		Biology A.* French C. German C. II. English. III. Chemistry.* IV. Physics.*	Biology A.* [English H.*] *English J.** Physics B. II. English. III. Chemistry.*	
4:10	Bible. French A (2). Latin B.	Biology C. French A (2). Latin B.		*Biology C* French A (2). Latin B.	French A (2).	

[Bracketed titles] are for the first half-year only. *Italicised titles* are for the second half-year only. The hours of gymnasium exercise, as well as those of elective studies, are inserted in the schedule at the opening of the academic year. *Continued from the preceding period.

HONORS.

Scholarship Honors of two grades are awarded at Commencement for excellence in the work of the year. The Honor list for 1898–99 was as follows:

HIGH HONORS.

Albert Converse Ingersoll, '00.

James Irving Reynolds, '00.

Ella Lorna Graber, '02.

HONORS.

Addie Dell Heizer, '99.

Roy Milo McClintock, '00.

Andrew Newton Thompson, '00.

Cora Draper, '02.

William Wallis Platt, '02.

Aimée Wakefield, '99.

Olive Ward Riggs, '00.

William Percival Nash, '01.

Leonard Rose Ingersoll, '02.

Diquita Irwin, *Special.*

PERKINS SCHOLARS.

Grace Louise Bradshaw, '01

Hugh McLean, '01.

THE CUTLER ACADEMY—FACULTY.

WILLIAM FREDERICK SLOCUM
President.

NATHAN B. COY, Principal
Latin and Greek.

LOUIS A. E. AHLERS
French and German.

SAMUEL J. BARNETT
Physics.

MAUDE BEMIS
Drawing.

ERNEST BREHAUT
Latin.

CHARLES BROOKOVER
Physiology and Botany.

ANNA PEARL COOPER
English.

P. E. DOUDNA*
Mathematics.

M. CLEMENT GILE
Greek.

ADDIE DELL HEIZER
Latin and English.

HANNAH TAYLOR MUIR
Physiology and Hygiene.

ATHERTON NOYES
English and Greek.

EDWARD S. PARSONS.
English.

SIDNEY F. PATTISON
History.

HUGH A. SMITH
French and German.

WILLIAM STRIEBY
Chemistry.

FRANCIS WALKER
History and Government.

---

* Deceased.

THE CUTLER ACADEMY.

This fitting school, named in honor of one of the most generous and steadfast friends of Colorado College (Henry Cutler, of Massachusetts), provides a thorough preparation for any college in the United States. While the preparatory training is the principal aim, the plan of study is so arranged as to meet the requirements of students who do not propose entering upon college work. The course embraces four years, and the teaching is conducted by instructors most of whom are also engaged in the work of the College.

Correspondence concerning the Cutler Academy should be addressed to the Principal, Nathan B. Coy.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the Cutler Academy are expected to have finished the eighth grammar grade in the public schools, or to have covered the equivalent of the following work:

Arithmetic—Franklin or Wentworth.

English—Reed and Kellogg's Higher Lessons.

History—Montgomery's United States History.

Geography—Any school Geography.

Applicants for admission who have, within six months, been students in the Colorado Springs High School, must present certificates from the High School, showing completion of the work of the grade preparatory to the Academy class which they wish to enter. The High School will, upon payment of a small fee, provide special examinations for this purpose, if the regular examinations were not passed. The Academy will not examine such applicants, except upon subjects which were not included in their High School course.

Candidates for admission in 1900 are expected to present themselves at Palmer Hall on Tuesday, June 5th, or Tuesday, September 11th, at 9 A. M. Every applicant for admission must bring a satisfactory certificate of good moral character, together with a full written statement of studies pursued elsewhere. Any student whose influence is felt to be injurious to good scholarship or good morals will not be permitted to remain in the Academy.

COURSES OF INSTRUCTION.

CLASSICAL COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* Collar and Daniell's First Latin Book	6
	Algebra: Through Fractions	4
	Review Arithmetic	2
	English: Review of Grammar (Carpenter); study of narration; writing of simple narrations	4
	Required Supplementary Readings, see p. 60.	
	Government	2
SECOND HALF:	*Latin:* First Latin Book completed; Allen and Greenough's Latin Grammar; A Junior Latin Book (Rolfe and Dennison); reading at sight; Roman History	6
	Algebra: Through Radicals and easy Quadratic Equations	4
	Inventional Geometry	2
	English: Gayley's Classic Myths; study of description; composition work	4
	Required Supplementary Readings, see p. 60.	
	History: English	2

SECOND YEAR.

FIRST HALF:	*Latin:* Allen and Greenough's Latin Grammar; A Junior Latin Book; Moulton and Collar's prose composition; reading at sight	4
	Greek: Goodwin's Grammar; White's Beginner's Greek Book	5
	English: Genung's Outlines of Rhetoric; choice of words, phraseology, the sentence; constant writing; lyrical poetry; figurative language; versification	3
	Required Supplementary Readings, see p. 60.	
	Algebra: Quadratic Equations completed	3
	German	4
SECOND HALF:	*Latin:* Grammar; A Junior Latin Book; Ovid, Stories from the Metamorphoses; reading at sight; prose composition	4
	Greek: Grammar; Xenophon's Anabasis; Coy's First Greek Reader; reading at sight; Greek History	5
	English: Genung concluded; the sentence continued, the paragraph; the whole composition; writing by means of outlines; methods of transition; poetry	3
	Required Supplementary Readings, see p. 60.	
	Algebra: Proportions, Progressions and allied topics	2
	German	4

THIRD YEAR.

FIRST HALF:	*Latin:* Grammar; Vergil, Æneid, Books I–III; reading at sight; prose composition (Moulton and Collar)	5
	Greek: Xenophon's Anabasis (Goodwin), 2 books; reading at sight; written translations; composition (Collar and Daniell)	5
	Geometry: Two books of Plane Geometry (Beman and Smith	4
	English:* George Eliot's Silas Marner; Scott's Ivanhoe; Goldsmith's Vicar of Wakefield; Cooper's Last of the Mohicans; Shakespeare's Merchant of Venice	3
	Required Supplementary Readings, see p. 60.	
SECOND HALF:	*Latin:* Grammar; Vergil, Æneid, Books IV–VI, The Bucolics; reading at sight; prose composition	5
	Greek: Xenophon's Anabasis, 2 books, or an equivalent; reading at sight; composition	5
	Geometry: Plane Geometry completed	4
	English:* Shakespeare's *Macbeth;* Coleridge's Ancient Mariner; Pope's Iliad, Books I, VI, XXII, XXIV; Addison's Sir Roger de Coverly Papers.	3
	Required Supplementary Readings, see p. 60.	

FOURTH YEAR.

FIRST HALF:	*Latin:* Grammar; Cicero, Four Orations Against Catiline; reading at sight; prose composition	5
	Greek: Homer, 1,200 lines; composition; reading at sight	5
	Mathematics: Review and general exercises	3
	English: Scott's Ivanhoe; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; *Macaulay's Essays on Milton and Addison.*	2
	Required Supplementary Readings, see p. 60.	
	German	4
	After 1900 one study chosen from the following list:	
	Physics	4
	Chemistry	4
	German	4
	French	4
	Advanced Algebra and Plane Trigonometry	4
SECOND HALF:	*Latin:* Grammar; Cicero, Orations for Archias, for Marcellus, and for the Manilian Law; reading at sight; prose composition	5
	Greek: Homer, 1,800 lines; written translations; Mahaffy's Old Greek Life; Jebb's History of Greek Literature; composition	5
	Mathematics: Review and general exercises	3
	English: Tennyson's Princess; Lowell's Vision of Sir Launfal; Burke's *Oration on Conciliation*	2
	(Required Supplementary Readings, see p. 60.)	
	German	4

NOTE.—In the *English* titles above, italics indicate the works intended for careful study; others are for reading.

* An extra period for grammar review will be required of students who show an insufficient knowledge of the subject.

SCIENTIFIC COURSE.

FIRST YEAR.

[The figures denote the number of recitations a week.]

FIRST HALF:	*Latin:* As in Classical Course, or	6
	German 4 and *Free Hand Drawing* (4) 2	
	Algebra: As in Classical Course	4
	Arithmetic: As in Classical Course	2
	English: As in Classical Course	4
	Government	2
SECOND HALF:	*Latin:* First half-year continued, or	6
	German and *Drawing*	
	Algebra	4
	Inventional Geometry	2
	English: As in Classical Course	4
	History: English	2

SECOND YEAR.

FIRST HALF:	*Latin*:* As in Classical Course	4
	French: Alternative with Latin	4
	Physiology: Martin's Human Body	4
	German†	1
	English: As in Classical Course	3
	Algebra: Quadratic Equations completed	3
	General History	3
SECOND HALF:	*Latin:* As in Classical Course	4
	French: As in first half-year	4
	German: As in first half-year	1
	English: As in Classical Course	3
	Algebra: Proportions, Progressions and allied topics	2
	History: As in first half-year	
	Drawing	1

THIRD YEAR.

FIRST HALF:	*Latin* or	5
	French‖ 1 and *German* 4	5
	Chemistry: Williams' Elements of Chemistry; laboratory practice	4
	Geometry: Two books of Plane Geometry	4
	English‡*:* As in Classical Course	3
	Free Hand or *Mechanical Drawing*	2
SECOND HALF:	*Latin* or *German* and *French*‖*:* First half-year's work continued	5
	Chemistry: First half-year's work continued	4
	Geometry: Plane Geometry completed	4
	English‡*:* As in Classical Course	3
	Drawing: First half-year continued	2

---

* Latin, if elected, must be taken at least two years.

† For those who elected German in first year.

‡ An extra period for grammar review will be required of students who show an insufficient knowledge of the subject.

‖ For those who elected French in second year.

FOURTH YEAR.

FIRST HALF:	*Latin*, or *French* 4 (or *German*) and *Mechanical* or *Free Hand Drawing* (2) 1	5
	Physics: Text-book and laboratory practice	4
	Review Mathematics: Advanced Algebra; Plane Trigonometry	3
	English: As in Classical Course	2
SECOND HALF:	*Latin*, or *French* (or *German*) and *Drawing:* First half-year's work continued	5
	Physics: First half-year continued	4
	Mathematics: Plane Trigonometry; Solid Geometry and Spherical Trigonometry optional	4
	English: As in Classical Course	2

HONORS.

Scholarship Honors of two grades are awarded at Commencement for excellence in the work of the year. The Honor list for 1898–99 was as follows:

HIGH HONORS.

SARAH FOSS WOLVERTON, '00.
GEORGE ROBERT DRYSDALE, '02.

HONORS.

ANNA BENNETT PITZER, '99.
MARJORIE TRUE GREGG, '01.
AARON JOSEPH LYMAN, '00.
FLORENCE KELLOGG ROOT, '02.
ELIZABETH JEANNETTE LOCKHART, '02.

APPENDIX.

REQUIRED SUPPLEMENTARY READINGS IN ENGLISH.

First Academy: Macaulay's Lays of Ancient Rome; Hawthorne's Wonder Book and Tanglewood Tales; Æsop's Fables; Gulliver's Travels; Arabian Nights; Scott's Ivanhoe; Dickens' Oliver Twist; Hughes' Tom Brown at Rugby; Kipling's Jungle Books; Kingsley's Water Babies; Tennyson's Enoch Arden; Lamb's Tales from Shakespeare.

Second Academy: St. Pierre's Paul and Virginia; Lanier's The Boy's King Arthur; Longfellow's Tales of a Wayside Inn; Irving's Tales of a Traveller; Dickens' Christmas Carol; Lanier's The Boy's Froissart; Bryant's Iliad; Scott's Talisman; Kingsley's Westward Ho; Hawthorne's Twice Told Tales; Brown's Rab and His Friends; Gayley's Classic Myths, Chapters IV–XXVI.*

Third Academy: Scott's Marmion and The Lady of the Lake; Shakespeare's Twelfth Night and Richard II; Irving's Conquest of Granada; Scott's Quentin Durward and Peveril of the Peak; Bulwer's The Last Days of Pompeii; Plutarch's Lives of Themistocles and Alcibiades; Fiske's War of Independence; Thackeray's Newcomes.

Fourth Academy: Palmer's Odyssey (or Leaf's Iliad); Matthew Arnold's Sohrab and Rustum; Scott's Guy Mannering and The Heart of Midlothian; Blackmore's Lorna Doone; Curtis' Prue and I; Saintine's Picciola; Jane Austen's Pride and Prejudice; Fiske's Critical Period of American History.

LATIN PRONUNCIATION.

The Roman system of pronouncing Latin is used in both Academy and College.

PREPARATION FOR OTHER COLLEGES.

A student who is preparing in Cutler Academy for some other college than Colorado College, where the requirements for admission differ in some particulars, can, by timely application to the instructors, secure such modification of his course as will meet the necessities of his case.

NOTE.

Students of Cutler Academy enjoy the privileges of the Coburn Library, the Department of Fine Arts and the Conservatory of Music on the same terms as students of the College.

Two excellent literary societies are maintained by the students of the Academy.

The Academy has separate athletic organizations—baseball, football, tennis, basket ball, etc.

---

* Required of all who did not have it in I Academy.

CONSERVATORY OF MUSIC.

FACULTY.

RUBIN GOLDMARK

Director of the Conservatory of Music and Professor of Harmony, Counterpoint and Composition.

CLARENCE W. BOWERS

Instructor in Piano-forte and Organ.

GEORGE CRAMPTON

Instructor in Voice Culture and Sight Reading.

CHARLES DOFF

Instructor in Violin.

OMA FIELDS

Instructor in Piano-forte.

R. F. SCHUBERT.

Instructor in Violoncello.

CONSERVATORY OF MUSIC.

PURPOSE AND SCOPE.

The Conservatory of Music was established by the Trustees of Colorado College in the fall of 1894, with a view of affording a thorough education and superior advantages in all the higher musical branches.

While this movement had long been contemplated, the Trustees and Faculty were unwilling to undertake its organization until convinced that the same high standards in courses and instruction upheld in the College would be maintained in the Conservatory.

Necessity of the Conservatory.—The student of to-day in search of a musical education is frequently at a loss whither to turn for instruction. There is certainly no lack of teachers, but the absence of system and of well-established standards that can serve as guides to the student often occasions considerable loss of time in experimenting, until suitable instruction is obtained. It is safe to assert that in no other branch are so many years wasted in unlearning that which has been badly acquired as in the study of music. By modeling its Conservatory after the best European and Eastern institutions, Colorado College aims primarily at thoroughness of instruction and the maintenance of artistic ideals.

Object of a Conservatory.—The object of a Conservatory is not to turn out pianists, organists, violinists, or singers. Its chief function is, while enabling the student to acquire technical proficiency in any desired branch of the art, at the same time to mould him into a musician. This can be accomplished only by the Conservatory. Here the students of the various departments are drawn closely together in the exercise of their art. Co-ordinate branches, into which the private student can with difficulty gain an insight, are opened to view, a musical atmosphere is created, the horizon is widened, and the student unconsciously absorbs much that must prove of inestimable value in his own specialty.

Necessity of Theoretical Study.—The study of Musical Theory, for a long time so strangely neglected by the great majority of instrumentalists and vocalists, is of prime importance to every musician. The more he knows of Harmony, Counterpoint, Composition and the general History of Music, the more will his musical culture increase, his artistic view be broadened, his appreciation of the classic works of our great masters be deepened, and the more will he be able to impart to others the fundamental principles whereon musical progress is based.

Theory and Practice Combined.—While laying especial stress on its theoretical department, the Conservatory also provides for a course of illustrated lectures on general musical subjects and a series of recitals and concerts during each year, thus furnishing the student an opportunity of viewing in practice what he has learned in theory.

Importance of the Study of Other Educational Branches.— Nor can the musician of the present day afford to neglect his general education. Literary and artistic accomplishments should go hand in hand. Languages, æsthetics and belles lettres are of importance to the serious musician. On this account it is especially fortunate that the Conservatory stands in such intimate relations to the College, and that the pupils may avail themselves of its varied privileges. The Director of the Conservatory, or members of the College Faculty, will gladly confer with any student and assist him in determining what courses of study he may advantageously pursue.

RELATION OF THE CONSERVATORY TO COLORADO COLLEGE.

This department is under the same general supervision as the other departments of Colorado College, and under the immediate management of the Director and Faculty of Music. The general rules of the College apply to students of music also.

For those students of the Conservatory who desire to make use of the collegiate department, the fee for one study in the College is fixed at ten dollars a term, or twenty dollars a year. For two or more studies, the regular tuition of seventeen dollars and a half a term, or thirty-five dollars a year, will be charged.

COURSES OF STUDY.

The following courses of study are offered: Piano, violin, organ, voice culture, harmony, counterpoint and composition, in addition to the special advantages to be enumerated further on. Instruction on the other instruments will be provided as soon as a sufficient demand is evident.

CLASS OR PRIVATE INSTRUCTION.

The student is offered a choice between class and private instruction. While there is a general tendency at present to prefer private lessons, attention is called to the marked advantages that result from class instruction. In the former case, the pupil has the entire attention of the instructor for the time of the lesson—one-half hour. In the latter, an hour is divided among three pupils. Thus, while the time of actual instruction is ten minutes less for each individual, all the pupils remain in the class the full hour; in this manner they learn as much by listening to their classmates as when receiving instruction themselves. The greater knowledge of musical literature thus obtained is not to be underrated. For those who intend to adopt teaching as a vocation, it is most important to profit by the mistakes of others. The system of class instruction is in vogue in all European and in most of our Eastern conservatories.

I. Piano Forte.—In this, as in all other departments, the instruction is adapted to the individual needs of each pupil.

The course is divided into three grades, *Elementary*, *Intermediate* and *Advanced*.

In the *Elementary* grade the student is taught to read music, to play scales and arpeggios, studies by Koehler, Heller, and the first books of Czerny's School of Velocity, sonatinas by Clementi and Dussek, and sonatas by Haydn and Mozart.

In the *Intermediate* grades the pupil is expected to master all the scales in double-thirds and double-sixths, Bach's Two-Part Inventions, and the French Suites, Etudes of Cramer, Clementi's Gradus ad Parnassum, Moscheles, op. 70, the earlier sonatas of Beethoven, selections from Mendelssohn and Schumann, and the less difficult works of modern composers.

The *Advanced* grade will study Bach's Well-Tempered Clavichord and the English Suites, Kullak's Octave School, Tausig's Daily Studies, Etudes of Chopin, Schumann, Henselt, Rubinstein and Liszt, the piano concertos of Beethoven, Schumann, Chopin, Liszt, Grieg, Brahms and Tschaikowsky, as well as those works that constitute the repertory of the modern pianist.

Attention is also devoted in this course to sight-reading, accompaniment and ensemble playing.

II. VOICE CULTURE AND SINGING.—Especial attention is given in this course to a correct management of the breath, the posing and preservation of the voice, artistic phrasing, and the development of a refined musical taste.

This course is divided into four grades: *Elementary*, *Intermediate*, *Junior* and *Advanced*, and will cover the following works:

Elementary—Lessons in breathing; attack; simple tones; short intervals; slow trills; Behnke and Pearce's Exercises; easy songs.

Intermediate—Intervals; portamento; arpeggios; short scales; messa di voce; phrasing; Nava, Book I; Concone or Sieber exercises; songs and sacred music.

Junior—Development of voice; scales; phrasing; Nava, Book II; Concone or Luetgen exercises; Italian and German songs; oratorio.

Advanced—Scales; embellishments; further development of voice; Marchesi and Luetgen exercises; oratorio and opera; extended study of songs.

III. ORGAN.—It is required of pupils admitted to this course that they shall have first studied the piano for at least one year.

The *Elementary* grade is devoted to exercises in pedal playing, first studies in pedal obligato, hymn-tune playing, and elementary registration.

The *Middle* grade embraces an extended study of registration through the medium of pieces especially adapted for use as preludes and postludes in church service, including studies and pieces of the polyphonic type as represented by Bach and Rink, and the practice of quartette and chorus accompaniment.

The *Advanced* grade is devoted to the study of organ solo, including Bach's Preludes and Fugues, works in sonata form by Mendelssohn and others, modern works in free form, and lessons in improvisation and transposition.

IV. HARMONY.—This course includes the study of the various chords, their structure, relations and progressions, the working out of figured basses, the harmonization of choral-melodies, and modulation. All the principles are taken down by the students from demonstrations in the class-room. Richter's Harmony is used as a work of reference.

V. COUNTERPOINT.—This subject can be taken only by those who have satisfactorily completed the study of Harmony.

Simple and double Counterpoint for two, three, and four voices, imitations, canons, three and four part vocal and instrumental fugues. No text-book is used.

Harmony and Counterpoint have been placed on the list of elective studies in the regular College courses.

VI. COMPOSITION.—This subject is divided into two courses of one year each. A thorough knowledge of Harmony and Counterpoint is necessary for admission.

Part I. The construction of phrases and periods; the simpler instrumental forms; the scherzo, rondo, adagio, variations, and the sonata-form. The student does practical work in all these departments of Composition; the work is criticised in detail in the class-room. Especial attention is devoted to the analysis of the classic master works.

Part II. Instrumentation; the nature and characteristics of all the orchestral instruments, and their application in symphonic writing; the larger vocal and instrumental forms; the string quartette and various branches of chamber music; continuation of analysis and reading from score.

FREE ADVANTAGES.

Sight-Reading Class.—A class in solfeggio and singing at sight is organized each year, and is free to all students of the Conservatory.

Special Lectures and Concerts.—All lectures and concerts given under the auspices of the Conservatory are free to students of music. During this year the following lectures were given by Mr. Goldmark:

Wagner Lectures:

1. Rheingold.
2. The Valkyrie.
3. Siegfried.
4. Goetterdæmmerung.
5. The Mastersingers of Nuremburg.
6. The National Element in Music (before the Colorado Springs Musical Club.)

The Colorado Springs Musical Club, which holds bi-weekly meetings during the year, has made a special low membership rate to students of the Conservatory. Pupils have thus the opportunity of hearing much music during the winter.

Artists' Concerts.—The Colorado Springs Musical Club also gives an annual course of concerts by famous artists, for which they have offered a materially reduced rate to students of the music department. Among the artists who have appeared this year are the well-known barytone, Max Heinrich, and his daughter, Miss Julia Heinrich; the famous Russian pianist, Vladimir de Pachman; the celebrated violiniste, Leonora Jackson, and others.

Great artists are continually stopping over at Colorado Springs to give concerts. This is a feature of the greatest possible value to all students of music.

Pupils' Recitals.—Owing to the increased facilities offered by Perkins Hall, there will be inaugurated a series of monthly pupils' recitals by and for the students of the department. One or two of these concerts will be given in public each year.

SPECIAL ADVANTAGES.

The Perkins Fine Arts Hall is provided with ten practice rooms for the use of such students of the Conservatory as reside on the College campus. A nominal fee is charged for the rent of the pianos.

The healthful surroundings and unexcelled climate of Colorado Springs, the quiet and seclusion that can so easily be obtained when desirable, are especial advantages to the music student. In many cases the study of music is a severe tax on the strength of the conscientious pupil. Here he can pursue musical and other studies, while at the same time gaining health and strength.

The student has access to the courses in Physical Training in the College, free of cost.

The College Library, of 25,000 volumes, is open to students of music on the same terms as to students of all other departments—three dollars a year.

EXPENSES—TUITION.

By the term of four months (coinciding with the College half-year), payable in advance; two lessons a week.

CLASS LESSONS, ONE HOUR LONG.

Piano-forte, violin, voice, organ, each	$25 00
Harmony	12 00
Counterpoint	18 00
Composition	22 50

PRIVATE HALF-HOUR LESSONS.

Piano-forte, violin, voice, organ, each	35 00

ROOMS AND BOARD.

Montgomery Hall, Ticknor Hall, and Hagerman Hall, the homes of College and Academy students, will be open to students of music at the same rates as to others. See page 88.

OTHER EXPENSES.

Library Fee (if Library is used), by the year	$3 00
Rent of Piano, one hour each day, by the term	3 00
Rent of Piano, two hours each day, by the term	5 00
Rent of Piano, each additional hour, by the term	2 00
Rent of two-manual organ, one hour each day, by the term	10 00

Students will be accepted only on payment of a full term's tuition. No deduction will be made for absence from lessons, except on account of prolonged illness.

DEPARTMENT OF ART AND DESIGN.

The dedication of the Perkins Fine Arts Building marked an important step in the advancement of art, not only in Colorado Springs, but in the West.

The School of Art and Design has been transferred to the studios and exhibition rooms running the length of the north side of the building, and designed especially for this purpose.

The studios are supplied with photographs and casts of the works of art of Europe. In the large exhibition room two public exhibitions have been held during the year. The one by local artists was largely patronized, and was attended by over twelve thousand people. The other was a loan exhibition, consisting of paintings by old and modern masters. Besides these, there will be smaller exhibits, always open to the pupils of the Art Department, and also a monthly exhibit of the best work done by pupils.

A course of lectures on German Art will be given by Professor Ahlers in the Perkins Auditorium at the beginning of the fall term, free to all pupils of the Art Department, and these will be followed by studio talks and lectures by Mr. Soutter on Italian and French Art. The object of the department is the development of art in the West. Not only is the student given opportunity for instruction in all branches of art that he may acquire technical proficiency, but the frequent lectures and exhibitions give breadth and thoroughness to his artistic education.

The school is modeled after the best institutions in the East and the first ateliers of Paris. All classes are under the special supervision of the Director of the Department, whose chief aim is to guide the pupil in his advancement, but at the same time to allow him perfect freedom and originality in his artistic development. For this reason the studios are always open to the pupils even out of class hours.

TUITION.

One year, five days a week in studio	$100 00
One half-year, five days a week in studio	60 00
One year, two days a week in studio	50 00
One half-year, two days a week in studio	30 00
Single lessons (in class)	1 50
Single lessons (private)	2 00

COURSES OF STUDY.

Classes in living model, three times a week; classes in freehand and mechanical drawing, illustrating, designing, sanguine and painting in oil, water colors and pastel.

CIRCULAR OF INFORMATION.

LOCATION.

Colorado College is fortunate in its environment. The city of Colorado Springs, the county seat of El Paso county, and the third largest municipality of the commonwealth, is somewhat remarkable for its history and character, and is admirably adapted to be the seat of a college. Founded in 1871, under the direction of men of shrewd foresight and broad views, it has maintained from the beginning high standards of morality and culture. Saloons and the attendant destructive influences are absent. Radiating railroad systems, and the recent development of neighboring gold fields, have fostered its wealth. While for its first inhabitants it was indebted largely to Pennsylvania and the more northern Atlantic States, as well as to England, its present population of more than twenty thousand is drawn from all sections of the country, and to some extent from foreign lands. Numerous visitors are attracted hither yearly, both pleasure-seekers and health-seekers, but the invalids are so far outnumbered that the place has none of the depressing influence so often observed at noted health resorts. It is fully supplied with the conveniences of city life, yet the lover of nature might seek far before finding a spot more favored. The mountains are close at hand and their serrated line occupies about one-third of the horizon. In the center of the range, and at an air distance of less than a dozen miles, stands the renowned Pike's Peak. Its summit is reached by a cog-railway, as well as by bridle-paths and by an excellent carriage road. About its base are numerous cañons, and in one of these, around a celebrated group of mineral springs, has grown up the city of Manitou. The climate of Colorado Springs has attained a world-wide reputation. Its curative qualities consist largely in the opportunity for outdoor exercise, afforded by the great number of fine days and in the dryness and rarity of the air, which add a quality exhilarating to all and regarded as a specific in cases of malarial diseases, asthma, and incipient phthisis. Students unable to work in other climates may here continue their studies, while at the same time making a permanent gain in health. This plan has been successfully carried out in numerous instances.

COLLEGE BUILDINGS.

The buildings of the College are situated on a tract of land, including about fifty acres, which, by reason of the growth of the city, has come to have nearly a central location. The most important are the following:

Palmer Hall, the oldest building on the campus, was first occupied in 1880. It contains, in addition to lecture-rooms, the Chemical, Physical and Biological Laboratories, and the Museum, a description of which may be found on page 78.

The Library, given in 1894 by the late Mr. N. P. Coburn, of Newton, Mass., and erected at a cost of $50,000, is an edifice of great architectural beauty, and admirably adapted to its purpose. It is of the "Peach Blow" sandstone of Colorado, and is roofed with red tile and copper mountings. The interior, with its ceiling twenty-six feet high, its red oak woodwork, its picturesque galleries, its inviting alcoves, its great stone fireplaces, is exceedingly attractive. Long arched windows, commanding views of the mountains and plains, extend from floor to ceiling. A full-sized cast of the "Winged Victory" of Samothrace stands at one end of the main hall. It was given in 1894 in memory of the Rev. Daniel P. Noyes and Helen McGregor Noyes, his wife, by their three children, Miss M.

McG. Noyes and Mr. Atherton Noyes (both then members of the College Faculty), and Mr. Edward P. Noyes, of Boston. In one of the recesses is a fine marble bust of Antinous, presented by Mrs. H. L. Ballou. A large case, containing Mr. A. L. Dickerman's collection of rare and valuable Indian curiosities, adds to the interest of the room. The well-lighted basement is used as a reading-room.

THE PRESIDENT'S RESIDENCE, at the northern boundary of the campus, is a commodious building, purchased by the Trustees in 1888.

THE ASTRONOMICAL OBSERVATORY is the gift of Henry R. Wolcott, Esq., of Denver, and was completed in June, 1894. On the lower floor is a well-appointed lecture-room, with an adjoining study, a transit-room and a photographic dark-room. Upstairs is the dome-room, containing the equatorial telescope, supported on a stone pier.

THE GYMNASIUM, built by the students of the College in 1891, contains an excellent assortment of apparatus. See "Physical Training," p. 48.

THE PERKINS FINE ARTS HALL, named for one of the principal donors, the late Willard B. Perkins, of Colorado Springs, is the latest addition to the equipment of the College. It is a two-story stone building, erected at a cost of $30,000. The lower story is a large auditorium, with ceiling twenty-three feet high, capable of seating 600 persons. In it the chapel exercises are held and concerts and lectures are given. This room contains a valuable pipe-organ, given by Miss Elizabeth Cheney, of Wellesley, Mass., in memory of her brother, Mr. Charles P. Cheney, who died in Colorado Springs in 1897. In the hallway stands a bronze statue of Hermes, presented by Mr. James F. Burns. The upper story contains the studios, practice and lecture-rooms of the Department of Fine Arts and the Conservatory of Music. In the exhibition room is hung a collection of paintings loaned to the College by Mr. J. J. Hagerman. During the exhibition of paintings by local artists, held when this building was dedicated, Mr. Louis R. Ehrich purchased Mr. Leslie J. Skelton's painting, "Meadow-Land, Montigny, France," and presented it to the College as the neucleus of a permanent collection. To this will shortly be added a picture by the well-known French painter Iwill, presented by Mr. Leslie J. Skelton. Mr. James F. Burns has lately presented a valuable collection of Japanese prints.

COLLEGE RESIDENCES.

HAGERMAN HALL is a substantial stone building, built in 1889, and used as a residence for young men. It is under the supervision of Miss Ella Worden. Besides the students' rooms, which are well lighted and attractive, it contains a dining-room which can accommodate a hundred and fifty persons, as well as the Y. M. C. A. reading-room. In the upper story is the Weather Bureau office (see p. 78.) The dining-room is now used by a young men's boarding club.

MONTGOMERY HALL was erected and furnished in 1891 by the Woman's Educational Society, and presented free of debt to the College. It provides a comfortable and attractive home for the young women of the Academy, and is equipped with all modern appliances for their convenience. The dining-room is now used by a young women's boarding club.

TICKNOR HALL, the generous and beautiful gift of a friend of the College, was opened as the home for the young women of the College in January, 1898. Its comfort and conveniences are the result of careful study of the most perfect of recently-built dormitories for women. Besides students' rooms, it contains the College dining-room, drawing-rooms and guest-rooms, an infirmary capable of complete isolation, and a large study-room, comfortably furnished and provided with reference books, for the use of all the young women of College and Academy.

Members of the Faculty are resident in each of the halls.

After all vacancies in the halls are filled, young women can secure rooms in the vicinity subject to the approval of the Dean of Women.

All of the foregoing buildings, except the Gymnasium, are of stone. Heat and electric light are furnished to all from a central plant upon the College grounds.

SCIENCE AND ADMINISTRATION BUILDING.

During the coming year there will be erected another new building, which will be the largest and finest yet constructed. It is to be located on the northwest corner of the main campus with 100 feet frontage on North Cascade avenue. The purpose of the Trustees is to expend $100,000 upon the construction of the building and $25,000 upon its equipment. The sum of $50,000 has already been contributed for its endowment and $60,000 is already in hand for building purposes. The offices of the President and the Treasurer of the College will be located in it, and it will also contain fully equipped lecture rooms and laboratories for scientific work in all departments. It is the aim of the Trustees to make this building contribute to the scientific development of the locality and of the State. The building contract will call for its completion before the opening of the college year in September, 1901. Students who enter the College as Freshmen in September, 1900, will find the newly completed and equipped laboratories ready for use when they reach the scientific work of the Sophomore year.

LIBRARY.

The beautiful building in which the Library of the College is housed, has been elsewhere described (p. 72).

The number of volumes on the Library shelves amounts to twenty-five thousand, with several thousand pamphlets in addition. The leading literary and scientific journals are regularly received, as are also the United States Government publications and those of the State of Colorado. Of United States documents the library now has a well arranged collection of about four thousand volumes, including the records of Congress complete from 1847 to date, and many valuable records for the period 1774–1837. These documents are arranged on the plan adopted in the library of the Superintendent of United States Documents at Washington, thus making available all the cataloguing required by law to be done there.

The Medical Alcove was originated in 1894 by the generosity of the late Dr. B. F. D. Adams, of Colorado Springs, who presented to the College his extensive medical library. The El Paso Medical Society maintains the efficiency of this department by contributing the transactions of Medical Societies and other standard works purchased out of the funds of the Society for the use of its members. In July, 1896, moreover, the collection of works on medicine was much enriched by the gift of two hundred and fifty volumes and three hundred pamphlets from the late Dr. E. C. Kimball, of Colorado Springs.

With the commencement of the year 1896, a new departure in the Library management was inaugurated. The control of the Library was vested in a board of twenty-five, composed of members of the Faculty and Board of Trustees and of persons not otherwise connected with the College. Simultaneously with the creation of this board, the Library was opened as a circulating library to residents of Colorado Springs and vicinity. In the absence of anything like an adequate public or subscription library in the town, it was thought that the educational advantages afforded by access to the best books in literature, history and science might be extended to all citizens of Colorado Springs without detriment to the interests of the students and teachers of the College. Access to the shelves is permitted, and all the privileges of the Library, including the use of all the current magazines and periodicals taken by the College, are open to the public on payment of the same small fee required of College students. The Library is open from 8:30 A. M. until 6 P. M.

The "Coburn Library Book Club," organized in November, 1897, has met with remarkable success. The objects of this club are to provide its members with the best new books published, and to give these books to the Library at the end of twelve months. Its membership fee is $5 a year, and includes the full privileges of the Coburn Library. It has a membership of over one hundred, and has purchased more than six hundred and fifty books, of which between three and four hundred have been given to the general library.

In addition to the books acquired through the Club, many books bearing directly on the work of the College are added by purchase, and books of a general nature are contributed frequently by friends of the College.

READING ROOMS.

In the basement of the Library building is a Reading Room for the use of students and friends of the College, where the current literary and scientific magazines, as well as a number of leading newspapers, may be consulted. The young men have the benefit of a similar room in Hagerman Hall, under the control of the Young Men's Christian Association of the College, while for the young women a study and reading-room is provided at Ticknor Hall.

LABORATORIES AND APPARATUS.

In addition to the physical, chemical and biological laboratories, a new mineralogical laboratory has been established during the current year, and is being equipped at a cost of $500, of which General William J. Palmer has generously contributed $100. The equipment will include eight working collections and six mineralogical tables, supplied with all the necessary apparatus. Sets of models illustrating the chief forms of crystal systems will also be provided.

The Observatory has a telescope of four inches aperture, presented by Mr. Henry R. Wolcott of Denver, a transit-instrument and a sidereal clock, both given by Mr. Charles S. Blackman of Montreal, Canada.

A Meteorological Observing Station is maintained by the College and daily records are made and reported to the United States Weather Bureau. A Monthly report is also made to the Health Department of Colorado Springs. The instruments now in the station are dry and wet bulb thermometers, a maximum and a minimum thermometer, a Richards thermograph, a mercurial barometer, a self-registering anemometer, an anemoscope, a rain and snow gauge, and a Draper barograph.

MUSEUM.

An excellent foundation for a Museum was early laid by the geological and other donations of Prof. J. H. Kerr, Rev. E. N. Bartlett, Dr. E. P. Tenney and Mr. George Fowler, and by the purchase of the Rev. R. T. Cross mineral and the Prof. Marcus E. Jones botanical collections. In relation to the future work of the College, the gifts in geology and zoology by Professor Kerr, donor of some two thousand specimens, were destined to be of especial value, the former including as their central feature the systematically arranged and mounted Ward's "College Collection" of over 600 representative minerals and rocks.

By far the largest and most important contribution that has been made to the Museum is a gift from General William J. Palmer and the Colorado Springs Company, who in 1896 purchased and donated to the College the large paleontological cabinet of Professor Cragin, thus permanently securing to the institution some eight thousand specimens from Colorado, Kansas, Indian Territory, Texas and other States. The collection contains some mineral and zoological specimens, but is chiefly valuable for its paleontological material, which includes remains of Pliocene horses and llamas, Miocene rhinoceroses and mastodons, Cretaceous saurians, Tertiary fishes, and a large series of shells, echinoderms, and other invertebrates from the lower Cretaceous. It is of importance, not only as supplying a large part of the geological record not otherwise represented in the Museum, but also as being the elaborated result of years of research and containing the types of many new species and some new genera of fossils, both invertebrate and vertebrate. Among these type-fossils, the most important is the large plesiosaurian reptile, *Trinacromerum*, the type of a new genus and species described from the Cretaceous of Kansas in 1888.

A valuable contribution to the Museum, and one that has filled a gap in the material illustrating Organic Geology, is the collection of fossil invertebrates, chiefly Tertiary Mollusca from the Atlantic slope, presented last year by Dr. William B. Clark, State Geologist of Maryland, and Professor of Geology in the Johns Hopkins University.

An important recent acquisition is the Educational Series of rocks received from Mr. Charles D. Walcott, Director of the United States Geological Survey in 1897. This is a systematic collection of unaltered and metamorphic rocks, including those of mechanical, chemical, organic and igneous origin, together with a few specimens illustrating special geological processes. It includes 156 numbers, prepared by Mr. Joseph S. Diller of the Survey, and is accompanied with a printed catalogue of the localities where the specimens were found.

In addition to those already mentioned, the museum equipment in geology includes collections of rocks from the Cripple Creek mining district presented by Prof. Stone, from New Hampshire (State Survey), of minerals from Lake Superior, the R. M. Bagg collection of Foraminifera, and many miscellaneous specimens.

During the past year the Museum has received collections from Dr. R. M. Bagg and Prof. G. H. Stone, and specimens from many others, the complete list of whom is too long to be reproduced here.

In Zoology, the Museum has useful collections in sponges, corals, echinoderms, mollusks and birds, with small herpetological and osteological collections, and some material in other groups.

COLORADO COLLEGE SCIENTIFIC SOCIETY.

The Colorado College Scientific Society holds monthly meetings in the College Chapel. The objects of the society are: "The discussion of recent scientific results, the promotion among its members of scientific inquiry and investigation, and the publication of the more important papers read at the meetings." It was organized in January, 1890, and has already done some excellent work. Eight annual publications, entitled "Colorado College Studies," have been issued, and a considerable number of exchanges have been secured from associations of a like nature, including some foreign societies. The attention which the "Studies" have received from scientific men everywhere encourages the society to continue this publication. The list of articles hitherto published is as follows:

VOLUME FIRST.

A Rigorous Elementary Proof of the Binomial Theorem.—*F. H. Loud.*

On Certain Cubic Curves.—*F. H. Loud.*

A Study of the Inductive Theories of Bacon, Whewell and Mill. *Benj. Ives Gilman.*

A Mathematical Text-Book of the Last Century.—*Dr. F. Cajori.*

Horace, Od. III, 1, 34.—*George L. Hendrickson.*

Quinti Ciceronis, Commentariolum Petitionis XI, §43, (B. et K. Vol. IX, page 487).—*George L. Hendrickson.*

VOLUME SECOND.

Witchcraft Among the Hindus.—*Dr. H. W. Magoun.*

Protection for Congressional Minorities.—*W. M. Hall.*

Pulsations in the Aortic Arches of the Earthworm.—*Miss M. R. Mann.*

Dialectic Studies in West Virginia.—*Dr. Sylvester Primer.*

The Study of Diophantine Analysis in the United States.—*Dr. F. Cajori.*

The Elliptical Functions Defined Independently of the Calculus. —*F. H. Loud.*

On two Passages in the Crito.—*Dr. H. W. Magoun.*

Calibration of Burettes.—*D. J. Carnegie.*

On a Passage in the Frogs.—*Dr. H. W. Magoun.*

Note on the Hadley-Allen Grammar.—*Dr. H. W. Magoun.*

Historical Note on the Differentiation of a Logarithm.—*Dr. F. Cajori.*

A Mathematical Error in the Century Dictionary.—*Dr. F.Cajori.*

VOLUME THIRD.

The Etymologies in the Servian Commentary to Vergil.—*Dr. W. P. Mustard.*

Notes on Jefferson's Draft of the Ordinance of 1784.—*W. M. Hall.*

Some Notes on Blaydes' Nubes.—*Dr. A. T. Murray.*

On a Passage in Euripides' Iphigenia Taurica.—*Dr. A. T. Murray.*

Draper's Barograph.—*Dr. Florian Cajori.*

The Conditional in German.—*Dr. S. Primer.*

VOLUME FOURTH.

The Circular Locus.—*F. H. Loud.*

On the Eight Lines Usually Prefixed to Horat. Serm. 1, 10.—*Dr. W. P. Mustard.*

State Bank Notes.—*W. M. Hall.*

VOLUME FIFTH.

The Ethical Problem of the Public School System.—*W. F. Slocum.*

The Origin and Use of the Natural Gas at Manitou, Colorado (one plate).—*Wm. Strieby.*

Vertebrata from the Neocomian of Kansas (two plates).—*Dr. F. W. Cragin.*

The Choctaw and Grayson Terranes of the Arietina.—*Dr. F. W. Cragin.*

Descriptions of Invertebrate Fossils from the Comanche Series of Texas, Indian Territory and Kansas.—*Dr. F. W. Cragin.*

Herpetological Notes from Kansas and Texas.—*Dr. F. W. Cragin.*

VOLUME SIXTH.

The Permian System in Kansas.—*Dr. F. W. Cragin.*

On the Stratigraphy of the Platte Series, or Upper Cretaceous of the Plains.—*Dr. F. W. Cragin.*

Preliminary Notice of Three Late Neocene Terranes of Kansas.—*Dr. F. W. Cragin.*

VOLUME SEVENTH.

Literature for Children.—*E. S. Parsons.*

Warming Up.—*Dr. E. G. Lancaster.*

Equations of Motion of Viscous Liquid (Part I).—*P. E. Doudna.*

VOLUME EIGHTH.

Equations of Motion of a Perfect Liquid and a Viscous Liquid, When Referred to Cylindrical and Polar Co-ordinates (Part II).—*P. E. Doudna.*

The Capricorns, Mammals of an Asiatic Type, Former Inhabitants of the Pike's Peak Region.—*Dr. F. W. Cragin.*

Buchiceras (Sphenodiscus) Belviderensis and Its Varieties (two plates).—*Dr. F. W. Cragin.*

The Number Concept.—*Dr. F. Cajori.*

The subjects of papers from October, 1899, to May, 1900, are as follows:

1. PRESIDENT W. F. SLOCUM, Reconstruction in Theological Education.

2. DR. F. W. CRAGIN, Discovery of Extinct Asiatic Fauna in the Pike's Peak Region.

3. MR. F. R. HASTINGS, Spiritual Influences in the Life of Goethe.

4. DR. S. J. BARNETT, Electrostatic Induction and Surface Tension of Liquids.

5. PROFESSOR E. S. PARSONS, Aubrey's Brief Lives, 1669–1696.

6. DR. F. CAJORI, Rambles Among Infinities and Infinitesimals.

7. Dr. F. Cajori, Semi-Convergent and Divergent Series whose Product is Absolutely Convergent.

8. Professor L. A. E. Ahlers, The Latest German Drama.

9. Dr. E. G. Lancaster, On Hodgson's Proof of the Immortality of the Soul.

10. Professor C. Brookover, Influence of High Altitudes on Man.

Students are encouraged to attend the meetings of the Society.

The secretary of the Society, to whom all correspondence, exchanges, etc., should be addressed, is Professor Florian Cajori.

UNIVERSITY EXTENSION LECTURES.

University Extension work at Colorado College was begun in 1894. The work has steadily grown, and lectures are now given in many of the towns of the State. Last year courses were given by Prof. E. S. Parsons, Prof. L. A. E. Ahlers, and Dr. Lancaster. The courses given this year are as follows:

By Prof. E. S. Parsons, in Pueblo and Canon City:
    Modern Realism.

By. Prof. L. A. E. Ahlers, in Denver:
1. Faust (two lectures).
2. Volkslied.
3. Romanticism.

By Prof. L. A. E. Ahlers, in Pueblo:
1. Faust (three lectures).
2. German School and University Life.

By Prof. L. A. E. Ahlers, in Colorado Springs:
1. Moderm German Dramatists.
2. Modern French Novelists.

By Dr. Lancaster, in Denver:
1. Child Study (eighteen lectures).
2. History of Education and Educational Reformers.

By Dr. Lancaster, in La Junta:
    Child Study.

RELIGIOUS LIFE.

As was stated in the introduction to the Bulletin, it has been the aim of the College authorities, from the outset, to build up in Colorado Springs a distinctively Christian College; one which, while maintaining the best standards of intellectual work, will recognize Christian character as the highest possible attainment and the religious spirit as the most potent inspirer of mind and soul alike. This result has been sought in no sectarian spirit. No student is influenced in any way toward any particular denomination. When students come to the College, inquiry is made as to their denominational affiliations, and what churches in the city they desire to attend; lists are sent to the pastors of these churches with the request that they seek the students out and bring about them the influence of the church home. The students are received into the city churches, and in a very short time are found taking active part in their religious work.

Various services at the College express the religious spirit. Sunday evenings a vesper service, chiefly of music and prayer, with a brief address, is held in the study room of Ticknor Hall.

Six days in the week, at 9:15 in the morning, all the students gather with the Faculty, and such friends from outside as may wish to attend, in the chapel for morning prayers. Occasionally the service is shortened for the President's ethical talk, in which he discusses questions bearing on the student life, taking up such subjects as truthfulness, courtesy, large-mindedness, pure-mindedness, reverence. These talks have had a marked influence upon the standards and tone of the College life.

Once a year the students and Faculty unite in the exercises of the Day of Prayer for Colleges. A prayer meeting is held at an early morning hour; then follows, at 11 o'clock, the public service in the chapel, with an address by some speaker from outside the College. During the day, classes often hold meetings by themselves, and in the evening all unite again in a prayer and conference meeting. A deep earnestness always pervades the exercises of the day.

There are religious organizations under the control of the students themselves. The Young Women's Christian Association has a membership of ninety-six, and holds a Sunday afternoon meeting. The second meeting of each month is a union missionary meeting with the Young Men's Christian Association. Several classes for the study of the Bible have held regular sessions during the year. Many of the young women are working under the direction of the Society in mission and sewing schools and other charitable organizations. Clothes and food have been provided by them for a number of poor families. A specific work undertaken by the Society is the support of a missionary in China. Two young women were sent last summer to Lake Geneva, Wis., to the Y. W. C. A. conferences.

The Young Men's Christian Association, numbering fifty members, holds a Sunday afternoon meeting and evening prayers in Hagerman Hall. It has organized several classes for Bible study and one for the systematic study of missions. Besides this work and that done in the churches of the town, the young men support a native worker in India. Three delegates were sent last summer to Lake Geneva, Wisconsin.

At the beginning of the College year, members of the Associations meet all trains and welcome new students.

The Student Volunteer movement has entered the College, and is represented by an earnest band of eight, four of whom are young women. Its members, who have declared it as their purpose to go to the foreign field if God opens the way, endeavor by every means to bring before the students and the various young people's societies in the city and its vicinity the importance of missionary work. Of the ten former members of the band, seven are continuing in other institutions their preparation for the foreign field, and three are already actively engaged in missionary work.

ALUMNI ASSOCIATION.

The Alumni Association of Colorado College is becoming one of the important features of the College. Its membership consists of those students who have attended the College long enough to have an interest in its welfare, and who desire to keep up the acquaintance of graduates and former students. The annual meeting and banquet of the Association occurs during commencement week.

OFFICERS.

Frederic Hastings, '91,	President.
W. R. Armstrong, '99,	1st Vice President.
Della Gandy, '98,	2d Vice President.
R. D. McLeod	3d Vice President.
W. L. Tibbs, '94,	4th Vice President.
D. F. Matchett,	5th Vice President.
Nettie M. Carey,	Secretary.
O. H. Shoup,	Treasurer.

STUDENT PUBLICATIONS.

The *Tiger*, a weekly newspaper, is issued by an editorial board composed of College students. An *Annual* is published in May by the Junior class. A *Handbook* of information is issued at the beginning of the College year by the Y. M. C. A.

LITERARY SOCIETIES.

The Oratorical and Debating Society has charge of oratorical and debating contests. The winner of the oratorical contest this year was Sperry Packard, '02. Those chosen to debate with Nebraska University were W. C. Browning, '00; F. S. Caldwell, '00, and B. M. Rastall, '01.

All students of the College are members of the association, and may compete for the oratorical prize or for a place on the intercollegiate team.

The Apollonian Club and the Pearsons Literary Society, composed of young men, and the Contemporary Club and Minerva Society, consisting of young women, hold weekly meetings for debates and other literary work. The Apollonian Club has just completed, at a cost of $600, a new hall. Besides these College societies, there are two Academy societies, the Hesperian and the Philo. During the year the Hesperian Society held two debates with High Schools in the State, winning both.

GLEE CLUBS.

The College Glee Club is continuing its work for the third year, under the direction of Clarence W. Bowers, of the Musical Faculty. A Mandolin Club of twelve members, has also been organized, and accompanied the Glee Club on its tour in the Easter vacation. The clubs gave concerts this year in the following places: Florence, Salida, Canon City, Montrose, Ouray, Telluride, Silverton, Durango, Alamosa, Creede, Del Norte, Pueblo, Denver and Colorado Springs, in this State, and Antonito and Santa Fé, New Mexico.

The Young Women's Glee Club, under the leadership of Mrs. Bowers, is now in its second year, and is doing admirable work.

SPECIAL STUDENTS.

Special students will be received, at the discretion of the Faculty, into such classes as they are qualified to enter. It is the rule of the College that such students must attend the examinations as well as the ordinary recitations of their classes, subject to the same conditions as other students.

Several of the courses of lectures which form part of the College instruction, particularly in the department of Philosophy, are open to the public on payment of a small fee, and without any requirement of examination.

EXPENSES.

Tuition by the year	$35 00
Matriculation fee	5 00
Library fee	3 00
Table board in Montgomery Hall,* a week	2 50
Table board in Hagerman Hall (club for young men), a week.	2 50
Table board in Ticknor Hall,† a week	4 00
Rooms,‡ warmed, furnished and lighted, a half-year, $20§ to	40 00
Fees of the College physician:	
Office consultation	50
Visits to rooms	1 00

For prolonged illness and in cases of contagious disease a special nurse is employed, and the expenses are charged to the patient.

COLLEGE BILLS.

The bills for tuition and room rent are issued at the beginning of each half-year, and are payable immediately, unless special arrangements are made in the proper offices.

Students who withdraw before the end of the term pay full tuition. Board bills are payable monthly, in advance.

PECUNIARY ASSISTANCE.

Scholarships.—The income of the following scholarships is devoted to the aid of worthy students who may need assistance in completing their course, and who, by their scholarship and character, prove themselves worthy of such assistance.

---

* At the young women's boarding club.

† Ticknor Hall is a residence for young women, but any person connected with the College may secure table board there.

‡ Students rooming in Hagerman, Montgomery or Ticknor Hall are required to furnish towels, bed linen and blankets.

§ The number of $20 rooms is limited. Others may be had at $25, $30, $35, $40. Application should be made early.

The Thomas Davee Scholarship of $500, established by the late Mrs. T. V. D. Mitchell, of West Minot, Maine.

The Rice Scholarship of $700, established by friends of the Rev. Chas. B. Rice, D. D., of Danvers, Mass.

The Currier Scholarship of $1,000, founded by the late Hon. Warren Currier, of St. Louis, Mo.

The Edwards Scholarship of $500, given by the Congregational Church of Wellesley Hill, Mass.

The Mary Caroline Quincy Scholarship of $500, given by the late Mr. George Henry Quincy, of Boston, Mass.

The Lawrence Myers Scholarship of $1,000, and the Lucy Platt Myers Scholarship of $1,000, given by Mrs. Laetitia M. Myers, of Plainfield, New Jersey.

The Fay Scholarship of $1,000, founded by the late Eliza A. Fay, of Boston, Mass.

A Scholarship of $1,000, given by Mr. William F. Richards, of Newport, N. H., through the Woman's Educational Society of Colorado College.

The Willard B. Perkins Scholarship of $7,000. The second Willard B. Perkins Scholarship of $7,000. These two scholarships were given by the late Willard B. Perkins, of Colorado Springs.

The Hawley Scholarship Fund, now amounting to about $7,500, founded by the will of Mrs. Mary R. Hawley, of Baltimore, Md., the annual income of which is used in the payment of scholarships of such students of the College as the Faculty may recommend, preference being given to those who are fitting themselves for Christian work.

The Hawley Memorial Fund, now amounting to about $7,500, founded by the will of Mrs. Mary R. Hawley, of Baltimore, Md., in memory of her husband, Mr. Martin

Hawley, the annual income of which is loaned to "worthy and deserving students of the College, as the Faculty may see proper."

Several other scholarships are supported by annual subscription.

SELF-SUPPORT.—Good scholars have opportunities for private teaching. Capable and faithful young men can find work in town, and there are many sources from which young women may derive an income while continuing their studies. Some students have paid all their expenses by current earnings.

THE WOMAN'S EDUCATIONAL SOCIETY OF COLORADO COLLEGE.

This Society was formed in April, 1889, by the women of Colorado Springs. Its purpose, as expressed in its constitution, "is to give physical, intellectual and spiritual aid to students in any department of Colorado College." This Society built Montgomery Hall, furnished Ticknor Hall, and has been of service in many ways to the College. Its members endeavor to come into personal relations with the students, especially with those who are supporting themselves; they try to find work for them, and by friendly advice assist them in their efforts to secure an education. The membership fees go to form a beneficiary fund, from which loans are made on the following conditions:

First—Loans may be made to students who have been in the College for one term and are recommended by the Faculty as in every way deserving of such aid.

Second—No student shall be allowed to incur an indebtedness to the Society of more than $300.

Third—Students may receive loans without interest until their connection with the College ceases; after that time their notes shall draw interest at four per cent.

The Society has received from Mr. William F. Richards, of Newport, N. H., a scholarship of $1,000 and from

Mrs. Mary R. Hawley a legacy of $10,000, the interest of which is to be awarded each year to young women in the College who are recommended by the Faculty. This year four scholarships are offered from this fund to members of the Sophomore and Junior classes.

The officers for the current year are:

President—Mrs. William F. Slocum.
First Vice-President—Mrs. Francis W. Goddard.
Recording Secretary—Mrs. Matthew Kennedy.
Corresponding Secretary—Mrs. William Strieby.
Treasurer—Mrs. Florian Cajori.

THE NEEDS OF THE COLLEGE.

Colorado College, never more truly than to-day, has great and pressing needs. The College stands upon a firm financial basis; but greater facilities in the way of equipment are an immediate necessity. The Trustees and Faculty feel it imperative that the opportunity for service which lies before the College, and the conditions by which this opportunity can be embraced, be understood. The urgent demands of the hour should be realized, not only by those who in previous years have nobly aided the College, but by all persons who are interested in the cause of learning, in the progress of science, and in the growth and development of the best educational institutions as a safeguard for republican government. Among the needs which force themselves upon attention are the following:

INCREASED ENDOWMENT FUNDS.

Endowment of Professorships.—It is greatly to be desired that the chairs in the various departments be permanently endowed. This need has come to be urgent by reason of the rapid growth in numbers and the consequent demands for instruction and for more complete courses.

Funds for the Library.—The permanent fund for purchasing books is too small, and both the regular work of the College and the value of the Library to the city are seriously hampered by this limitation. The College appeals earnestly to lovers of books for money to be used for this purpose, either to be added to the permanent fund or to be immediately expended for the pressing demands of the present moment.

Special Funds for Scientific Research.—Money to be devoted to scientific work in special lines is very greatly needed. The opportunities of Colorado College in this direction are unusual, because of the geographical, meteorological and geological situation. The attention of those interested in the advancement of science is earnestly called to this fact and to the statements in the article, "Museum," pp. 78–80.

Physical Apparatus.—The Physical Laboratory is equipped with some very good apparatus, but a great deal more is needed for effective work in advanced classes and for the purpose of original investigation. With a few thousand dollars our facilities could be immensely enlarged.

Museum Building.—The various scientific collections of the College have already outgrown the space allotted to them in Palmer Hall. A large number of specimens which would be valuable for class-room work, as well as of general public interest, are still packed away because there is no room to exhibit them. A building permanently endowed which will adequately house these valuable collections and provide for the future is one of the great needs of the College.

Residence Halls.—It is hoped that the young men may soon be provided with another residence hall, as the need is most pressing. Ticknor and Montgomery Halls, which are used as homes for the young women of the College and

Academy, are also found inadequate to supply the demand for rooms.

SCHOLARSHIP FUNDS.

The Trustees desire to emphasize the fact that many young people in a new country are obliged to earn their education by hard and self-denying work. Colorado College needs a large addition to her scholarship funds. Money thus applied tends directly to the profit of the individual and of the country.

FORMS OF BEQUEST.

Those who intend to devise property to Colorado College, or to the Woman's Educational Society, are requested to employ one of the following Forms of Bequest:

"I hereby give, devise and bequeath unto The Colorado College, of Colorado Springs, Colorado, the sum of..............................Dollars."

"I hereby give, devise and bequeath unto The Woman's Educational Society of Colorado College, of Colorado Springs, Colorado, the sum of..............................Dollars."

If property other than money is willed, the form should be correspondingly varied.

UNIVERSITY OF ILLINOIS-URBANA

3 0112 111535685